

Student:

Teacher:

Date:

<b>1</b> $7^2 =$   	<b>2</b> Solve for x $27 + x = 48$  $x =$ _____	<b>3</b> $-5 \cdot 14 =$   	<b>4</b> $8^3 =$   
<b>5</b> Solve for x $5x = 80$  $x =$ _____	<b>6</b> $-3 \cdot -9 =$   	<b>7</b> $-14 - 27 + 27 =$   	<b>8</b> Solve for x $x \div 3 = 8$  $x =$ _____
<b>9</b> Solve for x $3x = 36$  $x =$ _____	<b>10</b> Solve for x $x - 34 = 9$  $x =$ _____	<b>11</b> Convert to fraction $0.77 =$   	<b>12</b> $-5 + -11 + -13 =$   
<b>13</b> Convert to decimal $\frac{4}{5} =$   	<b>14</b> Convert to fraction $0.19 =$   	<b>15</b> Write fraction as mixed number $\frac{15}{2} =$   	<b>16</b> $18^2 =$   
<b>17</b> $-8 - -4 - -9 =$   	<b>18</b> Solve for x $12 = 2x + 2$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{23}{4} =$   	<b>20</b> Write the answer in lowest terms $\frac{4}{7} \cdot \frac{1}{8} =$   

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<b>21</b> 40% of 65=  _____	<b>22</b> Write the answer in lowest terms $\frac{8}{3} \cdot \frac{9}{11} =$  _____	<b>23</b> Solve for x $36 = 3x + 9$  X = _____	<b>24</b> 60% of 70=  _____
<b>25</b> $13^3 =$  _____	<b>26</b> 180% of 110=  _____	<b>27</b> $\begin{array}{r} 1.011 \\ \times 0.11 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.32 \\ \times 0.3 \\ \hline \end{array}$
<b>29</b> 195% of 120=  _____	<b>30</b> Convert to decimal $\frac{5}{8} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{7}{9} \div \frac{4}{5} =$  _____	<b>32</b> $0.4 \overline{)0.44}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 1 \frac{5}{12} \\ + 2 \frac{2}{12} \\ \hline \end{array}$	<b>34</b> $5.1 \overline{)2.04}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{4}{6} \\ - 2 \frac{1}{3} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 17$  X = _____
<b>37</b> Write the answer in lowest terms $1 \frac{1}{3} \cdot 1 \frac{1}{5} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{6}{8} \div \frac{4}{7} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{5}{7} \\ + 1 \frac{5}{14} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 7 \frac{5}{10} \\ - 2 \frac{4}{10} \\ \hline \end{array}$

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*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 4 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	49	1	0	21.	26	3	0
2.	21	1	0	22.	$2\frac{2}{11}$	2	0
3.	-70	1	0	23.	9	2	0
4.	512	1	0	24.	42	3	0
5.	16	1	0	25.	2197	3	0
6.	27	1	0	26.	198	3	0
7.	-14	2	0	27.	0.11121	3	0
8.	24	1	0	28.	0.396	2	0
9.	12	1	0	29.	234	3	0
10.	43	1	0	30.	0.625	3	0
11.	$\frac{77}{100}$	1	0	31.	$\frac{35}{36}$	3	0
12.	-29	1	0	32.	1.1	3	0
13.	0.8	1	0	33.	$3\frac{7}{12}$	2	0
14.	$\frac{19}{100}$	1	0	34.	0.4	3	0
15.	$7\frac{1}{2}$	2	0	35.	$1\frac{1}{3}$	3	0
16.	324	2	0	36.	34	2	0
17.	5	2	0	37.	$1\frac{3}{5}$	3	0
18.	5	1	0	38.	$1\frac{5}{16}$	3	0
19.	$5\frac{3}{4}$	2	0	39.	$7\frac{1}{14}$	3	0
20.	$\frac{1}{14}$	2	0	40.	$5\frac{1}{10}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

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<b>1</b> $2^2 =$  _____	<b>2</b> Solve for x $29 + x = 48$  $x =$ _____	<b>3</b> $-3 \cdot 14 =$  _____	<b>4</b> $1^3 =$  _____
<b>5</b> Solve for x $7x = 133$  $x =$ _____	<b>6</b> $-10 \cdot -7 =$  _____	<b>7</b> $-26 + -30 - 22 =$  _____	<b>8</b> Solve for x $x \div 6 = 8$  $x =$ _____
<b>9</b> Solve for x $3x = 63$  $x =$ _____	<b>10</b> Solve for x $x - 29 = 4$  $x =$ _____	<b>11</b> Convert to fraction $0.9 =$  _____	<b>12</b> $-11 + -5 + -4 =$  _____
<b>13</b> Convert to decimal $\frac{6}{10} =$  _____	<b>14</b> Convert to fraction $0.41 =$  _____	<b>15</b> Write fraction as mixed number $\frac{26}{6} =$  _____	<b>16</b> $19^2 =$  _____
<b>17</b> $-5 - -8 - -12 =$  _____	<b>18</b> Solve for x $80 = 9x + 8$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{9}{5} =$  _____	<b>20</b> Write the answer in lowest terms $\frac{2}{3} \cdot \frac{6}{7} =$  _____

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<b>21</b> 60% of 55=  _____	<b>22</b> Write the answer in lowest terms $\frac{5}{4} \cdot \frac{9}{11} =$  _____	<b>23</b> Solve for x $58 = 8x + 2$  $x =$ _____	<b>24</b> 20% of 15=  _____
<b>25</b> $17^3 =$  _____	<b>26</b> 105% of 120=  _____	<b>27</b> $\begin{array}{r} 1.023 \\ \times 0.13 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.02 \\ \times 0.4 \\ \hline \end{array}$
<b>29</b> 200% of 110=  _____	<b>30</b> Convert to decimal $\frac{3}{24} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{1}{5} \div \frac{8}{9} =$  _____	<b>32</b> $0.4 \overline{)0.12}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 1 \frac{3}{8} \\ + 2 \frac{4}{8} \\ \hline \end{array}$	<b>34</b> $4.5 \overline{)2.25}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 2 \frac{3}{4} \\ - 1 \frac{1}{2} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 16$  $x =$ _____
<b>37</b> Write the answer in lowest terms $3 \frac{1}{2} \cdot 3 \frac{1}{4} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{6}{8} \div \frac{4}{7} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 18 \frac{1}{2} \\ + 3 \frac{5}{6} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{5}{8} \\ - 1 \frac{2}{8} \\ \hline \end{array}$

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### Grade 8, Probe 5 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	4	1	0	21.	33	3	0
2.	19	1	0	22.	$1\frac{1}{44}$	2	0
3.	-42	1	0	23.	7	2	0
4.	1	1	0	24.	3	3	0
5.	19	1	0	25.	4913	3	0
6.	70	1	0	26.	126	3	0
7.	-78	2	0	27.	0.13299	3	0
8.	48	1	0	28.	0.408	2	0
9.	21	1	0	29.	220	3	0
10.	33	1	0	30.	0.125	3	0
11.	$\frac{9}{10}$	1	0	31.	$\frac{9}{40}$	3	0
12.	-20	1	0	32.	0.3	3	0
13.	0.6	1	0	33.	$3\frac{7}{8}$	2	0
14.	$\frac{41}{100}$	1	0	34.	0.5	3	0
15.	$4\frac{1}{3}$	2	0	35.	$1\frac{1}{4}$	3	0
16.	361	2	0	36.	32	2	0
17.	15	2	0	37.	$11\frac{3}{8}$	3	0
18.	8	1	0	38.	$1\frac{5}{16}$	3	0
19.	$1\frac{4}{5}$	2	0	39.	$22\frac{1}{3}$	3	0
20.	$\frac{4}{7}$	2	0	40.	$5\frac{3}{8}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

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<b>1</b> $9^2 =$   	<b>2</b> Solve for x $18 + x = 33$  $x =$ _____	<b>3</b> $-7 \bullet 10 =$   	<b>4</b> $7^3 =$   
<b>5</b> Solve for x $3x = 60$  $x =$ _____	<b>6</b> $-2 \bullet -7 =$   	<b>7</b> $-6 + 19 - 1 =$   	<b>8</b> Solve for x $x \div 5 = 6$  $x =$ _____
<b>9</b> Solve for x $2x = 24$  $x =$ _____	<b>10</b> Solve for x $x - 38 = 3$  $x =$ _____	<b>11</b> Convert to fraction $0.17 =$   	<b>12</b> $-5 + -10 + -11 =$   
<b>13</b> Convert to decimal $\frac{7}{10} =$   	<b>14</b> Convert to fraction $0.3 =$   	<b>15</b> Write fraction as mixed number $\frac{19}{3} =$   	<b>16</b> $17^2 =$   
<b>17</b> $-12 - -7 - -9 =$   	<b>18</b> Solve for x $9 = 2x + 3$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{9}{6} =$   	<b>20</b> Write the answer in lowest terms $\frac{5}{6} \bullet \frac{5}{6} =$   

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<b>21</b> 45% of 80=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{2} \cdot \frac{3}{11} =$  _____	<b>23</b> Solve for x $23 = 7x + 2$  x = _____	<b>24</b> 15% of 60=  _____
<b>25</b> $19^3 =$  _____	<b>26</b> 110% of 110=  _____	<b>27</b> $\begin{array}{r} 1.021 \\ \times 0.11 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.24 \\ \times 0.3 \\ \hline \end{array}$
<b>29</b> 185% of 120=  _____	<b>30</b> Convert to decimal $\frac{5}{8} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{1}{7} \div \frac{8}{9} =$  _____	<b>32</b> $0.4 \overline{)0.52}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{1}{11} \\ + 2 \frac{1}{11} \\ \hline \end{array}$	<b>34</b> $1.2 \overline{)3.12}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{4}{5} \\ - 2 \frac{4}{15} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 13$  x = _____
<b>37</b> Write the answer in lowest terms $1 \frac{1}{2} \cdot 1 \frac{2}{3} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{2}{4} \div \frac{1}{3} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 15 \frac{3}{5} \\ + 2 \frac{5}{10} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 7 \frac{5}{8} \\ - 1 \frac{4}{8} \\ \hline \end{array}$



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### Grade 8, Probe 6 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	81	1	0	21.	36	3	0
2.	15	1	0	22.	$1\frac{5}{22}$	2	0
3.	-70	1	0	23.	3	2	0
4.	343	1	0	24.	9	3	0
5.	20	1	0	25.	6859	3	0
6.	14	1	0	26.	121	3	0
7.	12	2	0	27.	0.11231	3	0
8.	30	1	0	28.	0.372	2	0
9.	12	1	0	29.	222	3	0
10.	41	1	0	30.	0.625	3	0
11.	$\frac{17}{100}$	1	0	31.	$\frac{9}{56}$	3	0
12.	-26	1	0	32.	1.3	3	0
13.	0.7	1	0	33.	$5\frac{2}{11}$	2	0
14.	$\frac{3}{10}$	1	0	34.	2.6	3	0
15.	$6\frac{1}{3}$	2	0	35.	$1\frac{8}{15}$	3	0
16.	289	2	0	36.	26	2	0
17.	4	2	0	37.	$2\frac{1}{2}$	3	0
18.	3	1	0	38.	$1\frac{1}{2}$	3	0
19.	$1\frac{1}{2}$	2	0	39.	$18\frac{1}{10}$	3	0
20.	$\frac{25}{36}$	2	0	40.	$6\frac{1}{8}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

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<b>1</b> $3^2 =$  _____	<b>2</b> Solve for $x$ $18 + x = 22$  $x =$ _____	<b>3</b> $-5 \cdot 2 =$  _____	<b>4</b> $9^3 =$  _____
<b>5</b> Solve for $x$ $5x = 60$  $x =$ _____	<b>6</b> $-2 \cdot -8 =$  _____	<b>7</b> $-5 - 9 + 2 =$  _____	<b>8</b> Solve for $x$ $x \div 8 = 4$  $x =$ _____
<b>9</b> Solve for $x$ $7x = 91$  $x =$ _____	<b>10</b> Solve for $x$ $x - 40 = 2$  $x =$ _____	<b>11</b> Convert to fraction $0.73 =$  _____	<b>12</b> $-2 + -19 + -10 =$  _____
<b>13</b> Convert to decimal $\frac{3}{5} =$  _____	<b>14</b> Convert to fraction $0.13 =$  _____	<b>15</b> Write fraction as mixed number $\frac{15}{6} =$  _____	<b>16</b> $18^2 =$  _____
<b>17</b> $-14 - -8 - -2 =$  _____	<b>18</b> Solve for $x$ $68 = 8x + 4$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{16}{3} =$  _____	<b>20</b> Write the answer in lowest terms $\frac{3}{4} \cdot \frac{2}{3} =$  _____

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<b>21</b> 70% of 10=  _____	<b>22</b> Write the answer in lowest terms $\frac{7}{2} \cdot \frac{9}{11} =$  _____	<b>23</b> Solve for x $89 = 9x + 8$  x = _____	<b>24</b> 20% of 40=  _____
<b>25</b> $16^3 =$  _____	<b>26</b> 110% of 160=  _____	<b>27</b> $\begin{array}{r} 1.005 \\ \times 0.12 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.21 \\ \times 0.3 \\ \hline \end{array}$
<b>29</b> 120% of 170=  _____	<b>30</b> Convert to decimal $\frac{14}{16} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{1}{9} \div \frac{8}{9} =$  _____	<b>32</b> $0.5 \overline{)0.15}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{5}{14} \\ + 6 \frac{4}{14} \\ \hline \end{array}$	<b>34</b> $3.4 \overline{)2.04}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{2}{7} \\ - 5 \frac{1}{14} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 10$  x = _____
<b>37</b> Write the answer in lowest terms $3 \frac{1}{3} \cdot 3 \frac{1}{5} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{2}{3} \div \frac{3}{5} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 17 \frac{1}{2} \\ + 3 \frac{3}{4} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 7 \frac{3}{4} \\ - 5 \frac{2}{4} \\ \hline \end{array}$

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### Grade 8, Probe 7 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	9	1	0	21.	7	3	0
2.	4	1	0	22.	$2\frac{19}{22}$	2	0
3.	-10	1	0	23.	9	2	0
4.	729	1	0	24.	8	3	0
5.	12	1	0	25.	4096	3	0
6.	16	1	0	26.	176	3	0
7.	-12	2	0	27.	0.1206	3	0
8.	32	1	0	28.	0.363	2	0
9.	13	1	0	29.	204	3	0
10.	42	1	0	30.	0.875	3	0
11.	$\frac{73}{100}$	1	0	31.	$\frac{1}{8}$	3	0
12.	-31	1	0	32.	0.3	3	0
13.	0.6	1	0	33.	$9\frac{9}{14}$	2	0
14.	$\frac{13}{100}$	1	0	34.	0.6	3	0
15.	$2\frac{1}{2}$	2	0	35.	$1\frac{3}{14}$	3	0
16.	324	2	0	36.	20	2	0
17.	-4	2	0	37.	$10\frac{2}{3}$	3	0
18.	8	1	0	38.	$1\frac{1}{9}$	3	0
19.	$5\frac{1}{3}$	2	0	39.	$21\frac{1}{4}$	3	0
20.	$\frac{1}{2}$	2	0	40.	$2\frac{1}{4}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

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<b>1</b> $7^2 =$   	<b>2</b> Solve for $x$ $6 + x = 42$  $x =$	<b>3</b> $-8 \bullet 3 =$  	<b>4</b> $2^3 =$  
<b>5</b> Solve for $x$ $3x = 84$  $x =$	<b>6</b> $-3 \bullet -7 =$  	<b>7</b> $-2 - -21 + 28 =$  	<b>8</b> Solve for $x$ $x \div 2 = 9$  $x =$
<b>9</b> Solve for $x$ $2x = 58$  $x =$	<b>10</b> Solve for $x$ $x - 28 = 5$  $x =$	<b>11</b> Convert to fraction $0.37 =$  	<b>12</b> $-3 + -15 + -2 =$  
<b>13</b> Convert to decimal $\frac{2}{4} =$  	<b>14</b> Convert to fraction $0.3 =$  	<b>15</b> Write fraction as mixed number $\frac{22}{8} =$  	<b>16</b> $16^2 =$  
<b>17</b> $-12 - -16 - -1 =$  	<b>18</b> Solve for $x$ $47 = 5x + 2$  $x =$	<b>19</b> Write fraction as mixed number $\frac{40}{3} =$  	<b>20</b> Write the answer in lowest terms $\frac{1}{2} \bullet \frac{5}{8} =$  

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<b>21</b> 20% of 35=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{3} \cdot \frac{8}{11} =$  _____	<b>23</b> Solve for x $67 = 8x + 3$  x = _____	<b>24</b> 10% of 70=  _____
<b>25</b> $13^3 =$  _____	<b>26</b> 145% of 120=  _____	<b>27</b> $\begin{array}{r} 1.005 \\ \times 0.15 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.32 \\ \times 0.1 \\ \hline \end{array}$
<b>29</b> 200% of 150=  _____	<b>30</b> Convert to decimal $\frac{14}{16} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{4}{6} \div \frac{6}{7} =$  _____	<b>32</b> $0.3 \overline{)0.33}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 1 \frac{3}{14} \\ + 2 \frac{2}{14} \\ \hline \end{array}$	<b>34</b> $2.5 \overline{)2.25}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{2}{3} \\ - 1 \frac{1}{6} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{7} = 4$  x = _____
<b>37</b> Write the answer in lowest terms $3 \frac{2}{9} \cdot 4 \frac{4}{7} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{8}{9} \div \frac{4}{9} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{3}{4} \\ + 2 \frac{5}{12} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{4}{5} \\ - 1 \frac{1}{5} \\ \hline \end{array}$

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**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 8 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	49	1	0	21.	7	3	0
2.	36	1	0	22.	$2\frac{2}{11}$	2	0
3.	-24	1	0	23.	8	2	0
4.	8	1	0	24.	7	3	0
5.	28	1	0	25.	2197	3	0
6.	21	1	0	26.	174	3	0
7.	47	2	0	27.	0.15075	3	0
8.	18	1	0	28.	0.132	2	0
9.	29	1	0	29.	300	3	0
10.	33	1	0	30.	0.875	3	0
11.	$\frac{37}{100}$	1	0	31.	$\frac{7}{9}$	3	0
12.	-20	1	0	32.	1.1	3	0
13.	0.5	1	0	33.	$3\frac{5}{14}$	2	0
14.	$\frac{3}{10}$	1	0	34.	0.9	3	0
15.	$2\frac{3}{4}$	2	0	35.	$4\frac{1}{2}$	3	0
16.	256	2	0	36.	28	2	0
17.	5	2	0	37.	$14\frac{46}{63}$	3	0
18.	9	1	0	38.	2	3	0
19.	$13\frac{1}{3}$	2	0	39.	$7\frac{1}{6}$	3	0
20.	$\frac{5}{16}$	2	0	40.	$3\frac{3}{5}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $5^2 =$  	<b>2</b> Solve for $x$ $28 + x = 47$  $x =$	<b>3</b> $-5 \cdot 17 =$  	<b>4</b> $6^3 =$  
<b>5</b> Solve for $x$ $4x = 72$  $x =$	<b>6</b> $-4 \cdot -7 =$  	<b>7</b> $-3 + -22 - 25 =$  	<b>8</b> Solve for $x$ $x \div 4 = 10$  $x =$
<b>9</b> Solve for $x$ $2x = 90$  $x =$	<b>10</b> Solve for $x$ $x - 19 = 5$  $x =$	<b>11</b> Convert to fraction $0.93 =$  	<b>12</b> $-6 + -9 + -12 =$  
<b>13</b> Convert to decimal $\frac{9}{10} =$  	<b>14</b> Convert to fraction $0.67 =$  	<b>15</b> Write fraction as mixed number $\frac{27}{4} =$  	<b>16</b> $10^2 =$  
<b>17</b> $-16 - -7 - -2 =$  	<b>18</b> Solve for $x$ $84 = 9x + 3$  $x =$	<b>19</b> Write fraction as mixed number $\frac{11}{6} =$  	<b>20</b> Write the answer in lowest terms $\frac{3}{5} \cdot \frac{7}{10} =$  



Student:

Teacher:

Date:

<b>21</b> 20% of 25=  _____	<b>22</b> Write the answer in lowest terms $\frac{8}{4} \cdot \frac{9}{11} =$  _____	<b>23</b> Solve for x $63 = 8x + 7$  x = _____	<b>24</b> 30% of 40=  _____
<b>25</b> $20^3 =$  _____	<b>26</b> 115% of 180=  _____	<b>27</b> $\begin{array}{r} 1.002 \\ \times 0.14 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.24 \\ \times 0.2 \\ \hline \end{array}$
<b>29</b> 180% of 140=  _____	<b>30</b> Convert to decimal $\frac{3}{8} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{2}{7} \div \frac{6}{7} =$  _____	<b>32</b> $0.4 \overline{)0.24}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 2\frac{1}{3} \\ + 2\frac{1}{3} \\ \hline \end{array}$	<b>34</b> $1.3 \overline{)2.21}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 5\frac{4}{9} \\ - 4\frac{1}{3} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{3} = 7$  x = _____
<b>37</b> Write the answer in lowest terms $1\frac{1}{3} \cdot 1\frac{3}{4} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{8}{9} \div \frac{2}{6} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 6\frac{5}{8} \\ + 2\frac{5}{16} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 5\frac{5}{8} \\ - 3\frac{3}{8} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 9 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	25	1	0	21.	5	3	0
2.	19	1	0	22.	$1\frac{7}{11}$	2	0
3.	-85	1	0	23.	7	2	0
4.	216	1	0	24.	12	3	0
5.	18	1	0	25.	8000	3	0
6.	28	1	0	26.	207	3	0
7.	-50	2	0	27.	0.14028	3	0
8.	40	1	0	28.	0.248	2	0
9.	45	1	0	29.	252	3	0
10.	24	1	0	30.	0.375	3	0
11.	$\frac{93}{100}$	1	0	31.	$\frac{1}{3}$	3	0
12.	-27	1	0	32.	0.6	3	0
13.	0.9	1	0	33.	$4\frac{2}{3}$	2	0
14.	$\frac{67}{100}$	1	0	34.	1.7	3	0
15.	$6\frac{3}{4}$	2	0	35.	$1\frac{1}{9}$	3	0
16.	100	2	0	36.	21	2	0
17.	-7	2	0	37.	$2\frac{1}{3}$	3	0
18.	9	1	0	38.	$2\frac{2}{3}$	3	0
19.	$1\frac{5}{6}$	2	0	39.	$8\frac{15}{16}$	3	0
20.	$\frac{21}{50}$	2	0	40.	$2\frac{1}{4}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $4^2 =$   	<b>2</b> Solve for $x$ $7 + x = 45$  $x =$	<b>3</b> $-12 \bullet 4 =$  	<b>4</b> $1^3 =$  
<b>5</b> Solve for $x$ $7x = 84$  $x =$	<b>6</b> $-3 \bullet -10 =$  	<b>7</b> $-23 + -16 - 12 =$  	<b>8</b> Solve for $x$ $x \div 3 = 12$  $x =$
<b>9</b> Solve for $x$ $5x = 85$  $x =$	<b>10</b> Solve for $x$ $x - 6 = 26$  $x =$	<b>11</b> Convert to fraction $0.37 =$  	<b>12</b> $-2 + -17 + -6 =$  
<b>13</b> Convert to decimal $\frac{4}{8} =$  	<b>14</b> Convert to fraction $0.47 =$  	<b>15</b> Write fraction as mixed number $\frac{39}{4} =$  	<b>16</b> $11^2 =$  
<b>17</b> $-3 - -16 - -6 =$  	<b>18</b> Solve for $x$ $24 = 2x + 8$  $x =$	<b>19</b> Write fraction as mixed number $\frac{27}{6} =$  	<b>20</b> Write the answer in lowest terms $\frac{2}{3} \bullet \frac{5}{7} =$  

Student:

Teacher:

Date:

<b>21</b> 25% of 20=  _____	<b>22</b> Write the answer in lowest terms $\frac{8}{6} \cdot \frac{9}{11} =$  _____	<b>23</b> Solve for x $38 = 9x + 2$  x = _____	<b>24</b> 10% of 60=  _____
<b>25</b> $10^3 =$  _____	<b>26</b> 120% of 120=  _____	<b>27</b> $\begin{array}{r} 1.005 \\ \times 0.14 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.01 \\ \times 0.4 \\ \hline \end{array}$
<b>29</b> 180% of 120=  _____	<b>30</b> Convert to decimal $\frac{10}{16} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{6}{9} \div \frac{6}{8} =$  _____	<b>32</b> $0.2 \overline{)0.12}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{3}{13} \\ + 2 \frac{4}{13} \\ \hline \end{array}$	<b>34</b> $2.2 \overline{)1.32}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{1}{2} \\ - 4 \frac{1}{4} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 22$  x = _____
<b>37</b> Write the answer in lowest terms $4 \frac{1}{3} \cdot 4 \frac{1}{4} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{9}{10} \div \frac{3}{4} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 14 \frac{2}{3} \\ + 3 \frac{5}{6} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{5}{8} \\ - 3 \frac{3}{8} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 10 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	16	1	0	21.	5	3	0
2.	38	1	0	22.	$1\frac{1}{11}$	2	0
3.	-48	1	0	23.	4	2	0
4.	1	1	0	24.	6	3	0
5.	12	1	0	25.	1000	3	0
6.	30	1	0	26.	144	3	0
7.	-51	2	0	27.	0.1407	3	0
8.	36	1	0	28.	0.404	2	0
9.	17	1	0	29.	216	3	0
10.	32	1	0	30.	0.625	3	0
11.	$\frac{37}{100}$	1	0	31.	$\frac{8}{9}$	3	0
12.	-25	1	0	32.	0.6	3	0
13.	0.5	1	0	33.	$7\frac{7}{13}$	2	0
14.	$\frac{47}{100}$	1	0	34.	0.6	3	0
15.	$9\frac{3}{4}$	2	0	35.	$1\frac{1}{4}$	3	0
16.	121	2	0	36.	44	2	0
17.	19	2	0	37.	$18\frac{5}{12}$	3	0
18.	8	1	0	38.	$1\frac{1}{5}$	3	0
19.	$4\frac{1}{2}$	2	0	39.	$18\frac{1}{2}$	3	0
20.	$\frac{10}{21}$	2	0	40.	$2\frac{1}{4}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $3^2 =$  	<b>2</b> Solve for $x$ $36 + x = 72$  $x =$	<b>3</b> $-8 \bullet 8 =$  	<b>4</b> $2^3 =$  
<b>5</b> Solve for $x$ $3x = 126$  $x =$	<b>6</b> $-3 \bullet -5 =$  	<b>7</b> $-30 - 30 + 10 =$  	<b>8</b> Solve for $x$ $x \div 2 = 10$  $x =$
<b>9</b> Solve for $x$ $2x = 38$  $x =$	<b>10</b> Solve for $x$ $x - 17 = 5$  $x =$	<b>11</b> Convert to fraction $0.7 =$  	<b>12</b> $-2 + -17 + -6 =$  
<b>13</b> Convert to decimal $\frac{3}{10} =$  	<b>14</b> Convert to fraction $0.11 =$  	<b>15</b> Write fraction as mixed number $\frac{23}{6} =$  	<b>16</b> $14^2 =$  
<b>17</b> $-15 - -10 - -2 =$  	<b>18</b> Solve for $x$ $42 = 5x + 2$  $x =$	<b>19</b> Write fraction as mixed number $\frac{32}{5} =$  	<b>20</b> Write the answer in lowest terms $\frac{1}{3} \bullet \frac{6}{7} =$  

Student:

Teacher:

Date:

<b>21</b> 70% of 70=  _____	<b>22</b> Write the answer in lowest terms $\frac{5}{3} \cdot \frac{7}{11} =$  _____	<b>23</b> Solve for x $21 = 2x + 9$  x = _____	<b>24</b> 45% of 60=  _____
<b>25</b> $13^3 =$  _____	<b>26</b> 110% of 160=  _____	<b>27</b> $\begin{array}{r} 1.402 \\ \times 0.50 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.32 \\ \times 0.4 \\ \hline \end{array}$
<b>29</b> 120% of 110=  _____	<b>30</b> Convert to decimal $\frac{7}{8} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{2}{4} \div \frac{5}{6} =$  _____	<b>32</b> $0.2 \overline{)0.54}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 11 \frac{5}{14} \\ + 6 \frac{8}{14} \\ \hline \end{array}$	<b>34</b> $3.4 \overline{)2.04}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{5}{6} \\ - 2 \frac{2}{3} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{9} = 5$  x = _____
<b>37</b> Write the answer in lowest terms $3 \frac{4}{5} \cdot 2 \frac{1}{3} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{5}{6} \div \frac{7}{9} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 13 \frac{1}{10} \\ + 5 \frac{17}{20} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 7 \frac{8}{13} \\ - 4 \frac{3}{13} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 11 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	9	1	0	21.	49	3	0
2.	36	1	0	22.	$1\frac{2}{33}$	2	0
3.	-64	1	0	23.	6	2	0
4.	8	1	0	24.	27	3	0
5.	42	1	0	25.	2197	3	0
6.	15	1	0	26.	176	3	0
7.	-50	2	0	27.	0.701	3	0
8.	20	1	0	28.	0.528	2	0
9.	19	1	0	29.	132	3	0
10.	22	1	0	30.	0.875	3	0
11.	$\frac{7}{10}$	1	0	31.	$\frac{3}{5}$	3	0
12.	-25	1	0	32.	2.7	3	0
13.	0.3	1	0	33.	$17\frac{13}{14}$	2	0
14.	$\frac{11}{100}$	1	0	34.	0.6	3	0
15.	$3\frac{5}{6}$	2	0	35.	$3\frac{1}{6}$	3	0
16.	196	2	0	36.	45	2	0
17.	-3	2	0	37.	$8\frac{13}{15}$	3	0
18.	8	1	0	38.	$1\frac{1}{14}$	3	0
19.	$6\frac{2}{5}$	2	0	39.	$18\frac{19}{20}$	3	0
20.	$\frac{2}{7}$	2	0	40.	$3\frac{5}{13}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2



Student:

Teacher:

Date:

<b>1</b> $9^2 =$   	<b>2</b> Solve for $x$ $25 + x = 32$  $x =$	<b>3</b> $-7 \bullet 4 =$  	<b>4</b> $4^3 =$  
<b>5</b> Solve for $x$ $6x = 90$  $x =$	<b>6</b> $-5 \bullet -12 =$  	<b>7</b> $-10 + 23 - 18 =$  	<b>8</b> Solve for $x$ $x \div 6 = 5$  $x =$
<b>9</b> Solve for $x$ $2x = 26$  $x =$	<b>10</b> Solve for $x$ $x - 8 = 27$  $x =$	<b>11</b> Convert to fraction $0.93 =$  	<b>12</b> $-9 + -11 + -1 =$  
<b>13</b> Convert to decimal $\frac{4}{5} =$  	<b>14</b> Convert to fraction $0.19 =$  	<b>15</b> Write fraction as mixed number $\frac{21}{2} =$  	<b>16</b> $18^2 =$  
<b>17</b> $-6 - -12 - -20 =$  	<b>18</b> Solve for $x$ $29 = 5x + 4$  $x =$	<b>19</b> Write fraction as mixed number $\frac{28}{3} =$  	<b>20</b> Write the answer in lowest terms $\frac{1}{3} \bullet \frac{4}{7} =$  

Student:

Teacher:

Date:

<b>21</b> 55% of 20=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{5} \cdot \frac{9}{11} =$  _____	<b>23</b> Solve for x $52 = 7x + 3$  x = _____	<b>24</b> 45% of 60=  _____
<b>25</b> $15^3 =$  _____	<b>26</b> 150% of 140=  _____	<b>27</b> $\begin{array}{r} 1.002 \\ \times 0.11 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.23 \\ \times 0.2 \\ \hline \end{array}$
<b>29</b> 190% of 160=  _____	<b>30</b> Convert to decimal $\frac{15}{24} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{2}{6} \div \frac{6}{8} =$  _____	<b>32</b> $0.3 \overline{)0.42}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{1}{9} \\ + 2 \frac{1}{9} \\ \hline \end{array}$	<b>34</b> $4.1 \overline{)1.23}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{4}{9} \\ - 2 \frac{1}{3} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 20$  x = _____
<b>37</b> Write the answer in lowest terms $4 \frac{1}{5} \cdot 5 \frac{2}{3} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{9}{10} \div \frac{6}{7} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{3}{4} \\ + 1 \frac{5}{16} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{4}{6} \\ - 2 \frac{3}{6} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 12 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	81	1	0	21.	11	3	0
2.	7	1	0	22.	$1\frac{26}{55}$	2	0
3.	-28	1	0	23.	7	2	0
4.	64	1	0	24.	27	3	0
5.	15	1	0	25.	3375	3	0
6.	60	1	0	26.	210	3	0
7.	-5	2	0	27.	0.11022	3	0
8.	30	1	0	28.	0.246	2	0
9.	13	1	0	29.	304	3	0
10.	35	1	0	30.	0.625	3	0
11.	$\frac{93}{100}$	1	0	31.	$\frac{4}{9}$	3	0
12.	-21	1	0	32.	1.4	3	0
13.	0.8	1	0	33.	$8\frac{2}{9}$	2	0
14.	$\frac{19}{100}$	1	0	34.	0.3	3	0
15.	$10\frac{1}{2}$	2	0	35.	$1\frac{1}{9}$	3	0
16.	324	2	0	36.	40	2	0
17.	26	2	0	37.	$23\frac{4}{5}$	3	0
18.	5	1	0	38.	$1\frac{1}{20}$	3	0
19.	$9\frac{1}{3}$	2	0	39.	$8\frac{1}{16}$	3	0
20.	$\frac{4}{21}$	2	0	40.	$4\frac{1}{6}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $2^2 =$  _____	<b>2</b> Solve for $x$ $37 + x = 42$  $x =$ _____	<b>3</b> $-8 \cdot 2 =$  _____	<b>4</b> $9^3 =$  _____
<b>5</b> Solve for $x$ $6x = 84$  $x =$ _____	<b>6</b> $-4 \cdot -8 =$  _____	<b>7</b> $-1 + -12 - 24 =$  _____	<b>8</b> Solve for $x$ $x \div 3 = 11$  $x =$ _____
<b>9</b> Solve for $x$ $4x = 64$  $x =$ _____	<b>10</b> Solve for $x$ $x - 33 = 7$  $x =$ _____	<b>11</b> Convert to fraction $0.53 =$  _____	<b>12</b> $-9 + -6 + -13 =$  _____
<b>13</b> Convert to decimal $\frac{8}{10} =$  _____	<b>14</b> Convert to fraction $0.31 =$  _____	<b>15</b> Write fraction as mixed number $\frac{25}{2} =$  _____	<b>16</b> $18^2 =$  _____
<b>17</b> $-20 - -7 - -4 =$  _____	<b>18</b> Solve for $x$ $51 = 7x + 2$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{19}{4} =$  _____	<b>20</b> Write the answer in lowest terms $\frac{1}{3} \cdot \frac{5}{6} =$  _____

Student:

Teacher:

Date:

<b>21</b> 75% of 24=  _____	<b>22</b> Write the answer in lowest terms $\frac{6}{2} \cdot \frac{9}{11} =$  _____	<b>23</b> Solve for x $28 = 6x + 4$  x = _____	<b>24</b> 40% of 50=  _____
<b>25</b> $12^3 =$  _____	<b>26</b> 110% of 150=  _____	<b>27</b> $\begin{array}{r} 1.001 \\ \times 0.15 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.32 \\ \times 0.2 \\ \hline \end{array}$
<b>29</b> 175% of 140=  _____	<b>30</b> Convert to decimal $\frac{3}{24} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{3}{9} \div \frac{8}{9} =$  _____	<b>32</b> $0.2 \overline{)0.34}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{2}{7} \\ + 2 \frac{4}{7} \\ \hline \end{array}$	<b>34</b> $5.2 \overline{)3.12}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{4}{5} \\ - 2 \frac{4}{15} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{9} = 5$  x = _____
<b>37</b> Write the answer in lowest terms $3 \frac{1}{3} \cdot 3 \frac{1}{5} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{9}{10} \div \frac{5}{6} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 2 \frac{3}{4} \\ + 3 \frac{5}{8} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{4}{5} \\ - 1 \frac{1}{5} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 13 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	4	1	0	21.	18	3	0
2.	5	1	0	22.	$2\frac{5}{11}$	2	0
3.	-16	1	0	23.	4	2	0
4.	729	1	0	24.	20	3	0
5.	14	1	0	25.	1728	3	0
6.	32	1	0	26.	165	3	0
7.	-37	2	0	27.	0.15015	3	0
8.	33	1	0	28.	0.264	2	0
9.	16	1	0	29.	245	3	0
10.	40	1	0	30.	0.125	3	0
11.	$\frac{53}{100}$	1	0	31.	$\frac{3}{8}$	3	0
12.	-28	1	0	32.	1.7	3	0
13.	0.8	1	0	33.	$5\frac{6}{7}$	2	0
14.	$\frac{31}{100}$	1	0	34.	0.6	3	0
15.	$12\frac{1}{2}$	2	0	35.	$1\frac{8}{15}$	3	0
16.	324	2	0	36.	45	2	0
17.	-9	2	0	37.	$10\frac{2}{3}$	3	0
18.	7	1	0	38.	$1\frac{2}{25}$	3	0
19.	$4\frac{3}{4}$	2	0	39.	$6\frac{3}{8}$	3	0
20.	$\frac{5}{18}$	2	0	40.	$3\frac{3}{5}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $6^2 =$   	<b>2</b> Solve for $x$ $38 + x = 46$  $x =$	<b>3</b> $-5 \bullet 4 =$  	<b>4</b> $2^3 =$  
<b>5</b> Solve for $x$ $3x = 66$  $x =$	<b>6</b> $-3 \bullet -8 =$  	<b>7</b> $-9 - -4 + 4 =$  	<b>8</b> Solve for $x$ $x \div 8 = 6$  $x =$
<b>9</b> Solve for $x$ $2x = 80$  $x =$	<b>10</b> Solve for $x$ $x - 22 = 9$  $x =$	<b>11</b> Convert to fraction $0.89 =$  	<b>12</b> $-9 + -2 + -13 =$  
<b>13</b> Convert to decimal $\frac{9}{10} =$  	<b>14</b> Convert to fraction $0.29 =$  	<b>15</b> Write fraction as mixed number $\frac{8}{3} =$  	<b>16</b> $20^2 =$  
<b>17</b> $-4 - -12 - -7 =$  	<b>18</b> Solve for $x$ $88 = 9x + 7$  $x =$	<b>19</b> Write fraction as mixed number $\frac{13}{4} =$  	<b>20</b> Write the answer in lowest terms $\frac{1}{3} \bullet \frac{6}{7} =$  

Student:

Teacher:

Date:

<b>21</b> 80% of 45=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{4} \cdot \frac{5}{11} =$  _____	<b>23</b> Solve for x $27 = 2x + 9$  x = _____	<b>24</b> 10% of 50=  _____
<b>25</b> $18^3 =$  _____	<b>26</b> 140% of 110=  _____	<b>27</b> $\begin{array}{r} 1.004 \\ \times 0.11 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.25 \\ \times 0.4 \\ \hline \end{array}$
<b>29</b> 120% of 130=  _____	<b>30</b> Convert to decimal $\frac{3}{24} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{4}{6} \div \frac{8}{9} =$  _____	<b>32</b> $0.2 \overline{)0.22}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 1 \frac{2}{12} \\ + 2 \frac{3}{12} \\ \hline \end{array}$	<b>34</b> $2.3 \overline{)1.15}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{4}{6} \\ - 3 \frac{2}{3} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 12$  x = _____
<b>37</b> Write the answer in lowest terms $1 \frac{1}{2} \cdot 1 \frac{2}{3} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{9}{10} \div \frac{6}{7} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{5}{6} \\ + 2 \frac{4}{12} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{4}{8} \\ - 1 \frac{1}{8} \\ \hline \end{array}$



Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 14 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	36	1	0	21.	36	3	0
2.	8	1	0	22.	$1\frac{1}{44}$	2	0
3.	-20	1	0	23.	9	2	0
4.	8	1	0	24.	5	3	0
5.	22	1	0	25.	5832	3	0
6.	24	1	0	26.	154	3	0
7.	-1	2	0	27.	0.11044	3	0
8.	48	1	0	28.	0.5	2	0
9.	40	1	0	29.	156	3	0
10.	31	1	0	30.	0.125	3	0
11.	$\frac{89}{100}$	1	0	31.	$\frac{3}{4}$	3	0
12.	-24	1	0	32.	1.1	3	0
13.	0.9	1	0	33.	$3\frac{5}{12}$	2	0
14.	$\frac{29}{100}$	1	0	34.	0.5	3	0
15.	$2\frac{2}{3}$	2	0	35.	1	3	0
16.	400	2	0	36.	24	2	0
17.	15	2	0	37.	$2\frac{1}{2}$	3	0
18.	9	1	0	38.	$1\frac{1}{20}$	3	0
19.	$3\frac{1}{4}$	2	0	39.	$7\frac{1}{6}$	3	0
20.	$\frac{2}{7}$	2	0	40.	$3\frac{3}{8}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $1^2 =$  _____	<b>2</b> Solve for $x$ $35 + x = 41$  $x =$ _____	<b>3</b> $-7 \cdot 5 =$  _____	<b>4</b> $6^3 =$  _____
<b>5</b> Solve for $x$ $6x = 78$  $x =$ _____	<b>6</b> $-3 \cdot -12 =$  _____	<b>7</b> $-21 - -5 + 4 =$  _____	<b>8</b> Solve for $x$ $x \div 8 = 2$  $x =$ _____
<b>9</b> Solve for $x$ $2x = 68$  $x =$ _____	<b>10</b> Solve for $x$ $x - 2 = 30$  $x =$ _____	<b>11</b> Convert to fraction $0.67 =$  _____	<b>12</b> $-2 + -4 + -13 =$  _____
<b>13</b> Convert to decimal $\frac{7}{10} =$  _____	<b>14</b> Convert to fraction $0.87 =$  _____	<b>15</b> Write fraction as mixed number $\frac{31}{5} =$  _____	<b>16</b> $10^2 =$  _____
<b>17</b> $-2 - -17 - -6 =$  _____	<b>18</b> Solve for $x$ $56 = 9x + 2$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{19}{2} =$  _____	<b>20</b> Write the answer in lowest terms $\frac{3}{4} \cdot \frac{1}{4} =$  _____

Student:

Teacher:

Date:

<b>21</b> 20% of 30=    	<b>22</b> Write the answer in lowest terms $\frac{4}{3} \cdot \frac{9}{11} =$  	<b>23</b> Solve for x $13 = 2x + 9$   x = _____	<b>24</b> 75% of 36=   
<b>25</b> $14^3 =$   	<b>26</b> 145% of 140=   	<b>27</b> $\begin{array}{r} 1.013 \\ \times 0.11 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.03 \\ \times 0.1 \\ \hline \end{array}$
<b>29</b> 200% of 120=   	<b>30</b> Convert to decimal $\frac{15}{24} =$  	<b>31</b> Write the answer in lowest terms $\frac{6}{9} \div \frac{8}{9} =$  	<b>32</b> $0.2 \overline{)0.12}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{2}{7} \\ + 3 \frac{2}{7} \\ \hline \end{array}$	<b>34</b> $3.1 \overline{)1.24}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{5}{7} \\ - 3 \frac{5}{14} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{5} = 7$   x = _____
<b>37</b> Write the answer in lowest terms $2 \frac{4}{9} \cdot 3 \frac{2}{7} =$   	<b>38</b> Write the answer in lowest terms $\frac{9}{10} \div \frac{2}{7} =$   	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 2 \frac{2}{3} \\ + 3 \frac{5}{15} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{4}{5} \\ - 1 \frac{1}{5} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 15 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	1	1	0	21.	6	3	0
2.	6	1	0	22.	$1\frac{1}{11}$	2	0
3.	-35	1	0	23.	2	2	0
4.	216	1	0	24.	27	3	0
5.	13	1	0	25.	2744	3	0
6.	36	1	0	26.	203	3	0
7.	-12	2	0	27.	0.11143	3	0
8.	16	1	0	28.	0.103	2	0
9.	34	1	0	29.	240	3	0
10.	32	1	0	30.	0.625	3	0
11.	$\frac{67}{100}$	1	0	31.	$\frac{3}{4}$	3	0
12.	-19	1	0	32.	0.6	3	0
13.	0.7	1	0	33.	$6\frac{4}{7}$	2	0
14.	$\frac{87}{100}$	1	0	34.	0.4	3	0
15.	$6\frac{1}{5}$	2	0	35.	$1\frac{5}{14}$	3	0
16.	100	2	0	36.	35	2	0
17.	21	2	0	37.	$8\frac{2}{63}$	3	0
18.	6	1	0	38.	$3\frac{3}{20}$	3	0
19.	$9\frac{1}{2}$	2	0	39.	6	3	0
20.	$\frac{3}{16}$	2	0	40.	$3\frac{3}{5}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $3^2 =$  _____	<b>2</b> Solve for x $19 + x = 32$  $x =$ _____	<b>3</b> $-12 \cdot 3 =$  _____	<b>4</b> $6^3 =$  _____
<b>5</b> Solve for x $4x = 80$  $x =$ _____	<b>6</b> $-4 \cdot -9 =$  _____	<b>7</b> $-20 + -23 - 9 =$  _____	<b>8</b> Solve for x $x \div 7 = 6$  $x =$ _____
<b>9</b> Solve for x $2x = 72$  $x =$ _____	<b>10</b> Solve for x $x - 25 = 4$  $x =$ _____	<b>11</b> Convert to fraction $0.99 =$  _____	<b>12</b> $-14 + -3 + -11 =$  _____
<b>13</b> Convert to decimal $\frac{2}{5} =$  _____	<b>14</b> Convert to fraction $0.51 =$  _____	<b>15</b> Write fraction as mixed number $\frac{9}{2} =$  _____	<b>16</b> $20^2 =$  _____
<b>17</b> $-19 - -14 - -3 =$  _____	<b>18</b> Solve for x $81 = 8x + 9$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{13}{3} =$  _____	<b>20</b> Write the answer in lowest terms $\frac{4}{7} \cdot \frac{4}{7} =$  _____

Student:

Teacher:

Date:

<b>21</b> 10% of 70=    	<b>22</b> Write the answer in lowest terms $\frac{9}{5} \cdot \frac{7}{11} =$  	<b>23</b> Solve for x $28 = 3x + 7$   x = _____	<b>24</b> 40% of 60=   
<b>25</b> $11^3 =$   	<b>26</b> 150% of 160=  	<b>27</b> $\begin{array}{r} 1.003 \\ \times 0.13 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.02 \\ \times 0.2 \\ \hline \end{array}$
<b>29</b> 200% of 140=   	<b>30</b> Convert to decimal $\frac{3}{8} =$  	<b>31</b> Write the answer in lowest terms $\frac{5}{6} \div \frac{1}{8} =$  	<b>32</b> $0.4 \overline{)0.52}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{3}{13} \\ + 1 \frac{2}{13} \\ \hline \end{array}$	<b>34</b> $3.1 \overline{)1.55}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 2 \frac{4}{5} \\ - 1 \frac{4}{15} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 13$   x = _____
<b>37</b> Write the answer in lowest terms $2 \frac{2}{3} \cdot 1 \frac{1}{6} =$  	<b>38</b> Write the answer in lowest terms $\frac{8}{9} \div \frac{6}{9} =$  	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 17 \frac{5}{6} \\ + 3 \frac{5}{12} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{5}{6} \\ - 2 \frac{4}{6} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 16 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	9	1	0	21.	7	3	0
2.	13	1	0	22.	$1\frac{8}{55}$	2	0
3.	-36	1	0	23.	7	2	0
4.	216	1	0	24.	24	3	0
5.	20	1	0	25.	1331	3	0
6.	36	1	0	26.	240	3	0
7.	-52	2	0	27.	0.13039	3	0
8.	42	1	0	28.	0.204	2	0
9.	36	1	0	29.	280	3	0
10.	29	1	0	30.	0.375	3	0
11.	$\frac{99}{100}$	1	0	31.	$6\frac{2}{3}$	3	0
12.	-28	1	0	32.	1.3	3	0
13.	0.4	1	0	33.	$5\frac{5}{13}$	2	0
14.	$\frac{51}{100}$	1	0	34.	0.5	3	0
15.	$4\frac{1}{2}$	2	0	35.	$1\frac{8}{15}$	3	0
16.	400	2	0	36.	26	2	0
17.	-2	2	0	37.	$3\frac{1}{9}$	3	0
18.	9	1	0	38.	$1\frac{1}{3}$	3	0
19.	$4\frac{1}{3}$	2	0	39.	$21\frac{1}{4}$	3	0
20.	$\frac{16}{49}$	2	0	40.	$1\frac{1}{6}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $9^2 =$    	<b>2</b> Solve for $x$ $8 + x = 32$  $x =$ _____	<b>3</b> $-10 \cdot 3 =$    	<b>4</b> $5^3 =$    
<b>5</b> Solve for $x$ $6x = 72$   $x =$ _____	<b>6</b> $-5 \cdot -13 =$    	<b>7</b> $-25 + -12 - 6 =$    	<b>8</b> Solve for $x$ $x \div 7 = 2$   $x =$ _____
<b>9</b> Solve for $x$ $2x = 28$   $x =$ _____	<b>10</b> Solve for $x$ $x - 31 = 3$   $x =$ _____	<b>11</b> Convert to fraction $0.61 =$    	<b>12</b> $-11 + -15 + -5 =$    
<b>13</b> Convert to decimal $\frac{5}{10} =$    	<b>14</b> Convert to fraction $0.57 =$    	<b>15</b> Write fraction as mixed number $\frac{29}{3} =$    	<b>16</b> $17^2 =$    
<b>17</b> $-5 - -10 - -11 =$    	<b>18</b> Solve for $x$ $29 = 9x + 2$   $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{22}{5} =$    	<b>20</b> Write the answer in lowest terms $\frac{2}{5} \cdot \frac{1}{10} =$    



Student:

Teacher:

Date:

<b>21</b> 85% of 40=  _____	<b>22</b> Write the answer in lowest terms $\frac{6}{2} \cdot \frac{8}{11} =$  _____	<b>23</b> Solve for x $56 = 6x + 8$  x = _____	<b>24</b> 45% of 20=  _____
<b>25</b> $15^3 =$  _____	<b>26</b> 150% of 130=  _____	<b>27</b> $\begin{array}{r} 1.021 \\ \times 0.14 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.05 \\ \times 0.5 \\ \hline \end{array}$
<b>29</b> 165% of 120=  _____	<b>30</b> Convert to decimal $\frac{2}{16} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{4}{6} \div \frac{5}{6} =$  _____	<b>32</b> $0.2 \overline{)0.52}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{1}{9} \\ + 5 \frac{4}{9} \\ \hline \end{array}$	<b>34</b> $2.5 \overline{)1.25}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{3}{5} \\ - 2 \frac{1}{15} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{3} = 7$  x = _____
<b>37</b> Write the answer in lowest terms $2 \frac{1}{3} \cdot 2 \frac{1}{3} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{8}{9} \div \frac{5}{6} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 17 \frac{1}{2} \\ + 3 \frac{3}{4} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 7 \frac{5}{10} \\ - 2 \frac{4}{10} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 17 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	81	1	0	21.	34	3	0
2.	24	1	0	22.	$2\frac{2}{11}$	2	0
3.	-30	1	0	23.	8	2	0
4.	125	1	0	24.	9	3	0
5.	12	1	0	25.	3375	3	0
6.	65	1	0	26.	195	3	0
7.	-43	2	0	27.	0.14294	3	0
8.	14	1	0	28.	0.525	2	0
9.	14	1	0	29.	198	3	0
10.	34	1	0	30.	0.125	3	0
11.	$\frac{61}{100}$	1	0	31.	$\frac{4}{5}$	3	0
12.	-31	1	0	32.	2.6	3	0
13.	0.5	1	0	33.	$11\frac{5}{9}$	2	0
14.	$\frac{57}{100}$	1	0	34.	0.5	3	0
15.	$9\frac{2}{3}$	2	0	35.	$1\frac{8}{15}$	3	0
16.	289	2	0	36.	21	2	0
17.	16	2	0	37.	$5\frac{4}{9}$	3	0
18.	3	1	0	38.	$1\frac{1}{15}$	3	0
19.	$4\frac{2}{5}$	2	0	39.	$21\frac{1}{4}$	3	0
20.	$\frac{1}{25}$	2	0	40.	$5\frac{1}{10}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $5^2 =$   	<b>2</b> Solve for $x$ $25 + x = 60$  $x =$	<b>3</b> $-5 \bullet 4 =$  	<b>4</b> $3^3 =$  
<b>5</b> Solve for $x$ $4x = 40$  $x =$	<b>6</b> $-6 \bullet -2 =$  	<b>7</b> $-40 - 40 + 5 =$  	<b>8</b> Solve for $x$ $x \div 5 = 4$  $x =$
<b>9</b> Solve for $x$ $2x = 36$  $x =$	<b>10</b> Solve for $x$ $x - 10 = 11$  $x =$	<b>11</b> Convert to fraction $0.1 =$  	<b>12</b> $-4 + -15 + -5 =$  
<b>13</b> Convert to decimal $\frac{6}{10} =$  	<b>14</b> Convert to fraction $0.13 =$  	<b>15</b> Write fraction as mixed number $\frac{31}{5} =$  	<b>16</b> $12^2 =$  
<b>17</b> $-12 - -11 - -3 =$  	<b>18</b> Solve for $x$ $33 = 6x + 3$  $x =$	<b>19</b> Write fraction as mixed number $\frac{25}{4} =$  	<b>20</b> Write the answer in lowest terms $\frac{1}{4} \bullet \frac{3}{10} =$  

Student:

Teacher:

Date:

<b>21</b> 50% of 60=  _____	<b>22</b> Write the answer in lowest terms $\frac{7}{2} \cdot \frac{5}{11} =$  _____	<b>23</b> Solve for x $14 = 2x + 8$  x = _____	<b>24</b> 35% of 100=  _____
<b>25</b> $12^3 =$  _____	<b>26</b> 130% of 110=  _____	<b>27</b> $\begin{array}{r} 1.303 \\ \times 0.43 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.23 \\ \times 0.3 \\ \hline \end{array}$
<b>29</b> 120% of 180=  _____	<b>30</b> Convert to decimal $\frac{21}{24} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{3}{5} \div \frac{4}{5} =$  _____	<b>32</b> $0.3 \overline{)0.12}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 10 \frac{5}{12} \\ + 5 \frac{2}{12} \\ \hline \end{array}$	<b>34</b> $1.3 \overline{)1.43}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{1}{8} \\ - 5 \frac{3}{4} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{5} = 8$  x = _____
<b>37</b> Write the answer in lowest terms $2 \frac{2}{3} \cdot 1 \frac{1}{6} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{4}{5} \div \frac{6}{8} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 12 \frac{1}{5} \\ + 6 \frac{7}{10} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{5}{11} \\ - 2 \frac{2}{11} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 18 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	25	1	0	21.	30	3	0
2.	35	1	0	22.	$1\frac{13}{22}$	2	0
3.	-20	1	0	23.	3	2	0
4.	27	1	0	24.	35	3	0
5.	10	1	0	25.	1728	3	0
6.	12	1	0	26.	143	3	0
7.	-75	2	0	27.	0.56029	3	0
8.	20	1	0	28.	0.369	2	0
9.	18	1	0	29.	216	3	0
10.	21	1	0	30.	0.875	3	0
11.	$\frac{1}{10}$	1	0	31.	$\frac{3}{4}$	3	0
12.	-24	1	0	32.	0.4	3	0
13.	0.6	1	0	33.	$15\frac{7}{12}$	2	0
14.	$\frac{13}{100}$	1	0	34.	1.1	3	0
15.	$6\frac{1}{5}$	2	0	35.	$\frac{3}{8}$	3	0
16.	144	2	0	36.	40	2	0
17.	2	2	0	37.	$3\frac{1}{9}$	3	0
18.	5	1	0	38.	$1\frac{1}{15}$	3	0
19.	$6\frac{1}{4}$	2	0	39.	$18\frac{9}{10}$	3	0
20.	$\frac{3}{40}$	2	0	40.	$3\frac{3}{11}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $7^2 =$   	<b>2</b> Solve for $x$ $39 + x = 51$  $x =$	<b>3</b> $-4 \cdot 16 =$  	<b>4</b> $2^3 =$  
<b>5</b> Solve for $x$ $2x = 70$  $x =$	<b>6</b> $-13 \cdot -9 =$  	<b>7</b> $-7 - 10 + 6 =$  	<b>8</b> Solve for $x$ $x \div 3 = 13$  $x =$
<b>9</b> Solve for $x$ $4x = 84$  $x =$	<b>10</b> Solve for $x$ $x - 27 = 3$  $x =$	<b>11</b> Convert to fraction $0.49 =$  	<b>12</b> $-6 + -12 + -7 =$  
<b>13</b> Convert to decimal $\frac{1}{5} =$  	<b>14</b> Convert to fraction $0.69 =$  	<b>15</b> Write fraction as mixed number $\frac{25}{3} =$  	<b>16</b> $18^2 =$  
<b>17</b> $-3 - -1 - -19 =$  	<b>18</b> Solve for $x$ $22 = 4x + 2$  $x =$	<b>19</b> Write fraction as mixed number $\frac{18}{4} =$  	<b>20</b> Write the answer in lowest terms $\frac{2}{3} \cdot \frac{4}{7} =$  

Student:

Teacher:

Date:

<b>21</b> 80% of 75=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{4} \cdot \frac{9}{11} =$  _____	<b>23</b> Solve for x $21 = 6x + 3$  X = _____	<b>24</b> 10% of 30=  _____
<b>25</b> $14^3 =$  _____	<b>26</b> 125% of 164=  _____	<b>27</b> $\begin{array}{r} 1.012 \\ \times 0.12 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.04 \\ \times 0.2 \\ \hline \end{array}$
<b>29</b> 190% of 150=  _____	<b>30</b> Convert to decimal $\frac{21}{24} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{6}{9} \div \frac{8}{9} =$  _____	<b>32</b> $0.2 \overline{)0.52}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 2\frac{1}{5} \\ + 2\frac{3}{5} \\ \hline \end{array}$	<b>34</b> $1.3 \overline{)2.34}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 5\frac{1}{2} \\ - 4\frac{1}{4} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{4} = 5$  X = _____
<b>37</b> Write the answer in lowest terms $5\frac{1}{2} \cdot 4\frac{2}{3} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{6}{8} \div \frac{4}{7} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 3\frac{5}{6} \\ + 1\frac{5}{12} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 7\frac{5}{10} \\ - 2\frac{4}{10} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 19 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	49	1	0	21.	60	3	0
2.	12	1	0	22.	$1\frac{37}{44}$	2	0
3.	-64	1	0	23.	3	2	0
4.	8	1	0	24.	3	3	0
5.	35	1	0	25.	2744	3	0
6.	117	1	0	26.	205	3	0
7.	-11	2	0	27.	0.12144	3	0
8.	39	1	0	28.	0.208	2	0
9.	21	1	0	29.	285	3	0
10.	30	1	0	30.	0.875	3	0
11.	$\frac{49}{100}$	1	0	31.	$\frac{3}{4}$	3	0
12.	-25	1	0	32.	2.6	3	0
13.	0.2	1	0	33.	$4\frac{4}{5}$	2	0
14.	$\frac{69}{100}$	1	0	34.	1.8	3	0
15.	$8\frac{1}{3}$	2	0	35.	$1\frac{1}{4}$	3	0
16.	324	2	0	36.	20	2	0
17.	17	2	0	37.	$25\frac{2}{3}$	3	0
18.	5	1	0	38.	$1\frac{5}{16}$	3	0
19.	$4\frac{1}{2}$	2	0	39.	$5\frac{1}{4}$	3	0
20.	$\frac{8}{21}$	2	0	40.	$5\frac{1}{10}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2



Student:

Teacher:

Date:

<b>1</b> $4^2 =$   	<b>2</b> Solve for $x$ $31 + x = 80$  $x =$	<b>3</b> $-7 \bullet 6 =$  	<b>4</b> $4^3 =$  
<b>5</b> Solve for $x$ $2x = 40$  $x =$	<b>6</b> $-4 \bullet -7 =$  	<b>7</b> $-20 - 20 + 8 =$  	<b>8</b> Solve for $x$ $x \div 3 = 6$  $x =$
<b>9</b> Solve for $x$ $3x = 24$  $x =$	<b>10</b> Solve for $x$ $x - 11 = 15$  $x =$	<b>11</b> Convert to fraction $0.17 =$  	<b>12</b> $-3 + -12 + -4 =$  
<b>13</b> Convert to decimal $\frac{4}{10} =$  	<b>14</b> Convert to fraction $0.23 =$  	<b>15</b> Write fraction as mixed number $\frac{23}{4} =$  	<b>16</b> $15^2 =$  
<b>17</b> $-18 - -13 - -5 =$  	<b>18</b> Solve for $x$ $24 = 5x + 4$  $x =$	<b>19</b> Write fraction as mixed number $\frac{19}{3} =$  	<b>20</b> Write the answer in lowest terms $\frac{1}{4} \bullet \frac{3}{10} =$  

Student:

Teacher:

Date:

<b>21</b> 10% of 50=   	<b>22</b> Write the answer in lowest terms $\frac{8}{3} \cdot \frac{9}{11} =$  	<b>23</b> Solve for x $17 = 4x + 5$  x = _____	<b>24</b> 50% of 80=  
<b>25</b> $10^3 =$  	<b>26</b> 150% of 130=  	<b>27</b> $\begin{array}{r} 1.203 \\ \times 0.32 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.50 \\ \times 0.2 \\ \hline \end{array}$
<b>29</b> 110% of 120=  	<b>30</b> Convert to decimal $\frac{10}{16} =$  	<b>31</b> Write the answer in lowest terms $\frac{1}{2} \div \frac{4}{7} =$  	<b>32</b> $0.4 \overline{)0.32}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 12 \frac{4}{11} \\ + 8 \frac{6}{11} \\ \hline \end{array}$	<b>34</b> $2.5 \overline{)1.25}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 8 \frac{2}{4} \\ - 7 \frac{3}{8} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{7} = 7$  x = _____
<b>37</b> Write the answer in lowest terms $4 \frac{1}{5} \cdot 5 \frac{2}{3} =$  	<b>38</b> Write the answer in lowest terms $\frac{2}{3} \div \frac{5}{8} =$  	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 11 \frac{1}{8} \\ + 7 \frac{3}{4} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{7}{12} \\ - 3 \frac{6}{12} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 20 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	16	1	0	21.	5	3	0
2.	49	1	0	22.	$2\frac{2}{11}$	2	0
3.	-42	1	0	23.	3	2	0
4.	64	1	0	24.	40	3	0
5.	20	1	0	25.	1000	3	0
6.	28	1	0	26.	195	3	0
7.	-32	2	0	27.	0.38496	3	0
8.	18	1	0	28.	0.3	2	0
9.	8	1	0	29.	132	3	0
10.	26	1	0	30.	0.625	3	0
11.	$\frac{17}{100}$	1	0	31.	$\frac{7}{8}$	3	0
12.	-19	1	0	32.	0.8	3	0
13.	0.4	1	0	33.	$20\frac{10}{11}$	2	0
14.	$\frac{23}{100}$	1	0	34.	0.5	3	0
15.	$5\frac{3}{4}$	2	0	35.	$1\frac{1}{8}$	3	0
16.	225	2	0	36.	49	2	0
17.	0	2	0	37.	$23\frac{4}{5}$	3	0
18.	4	1	0	38.	$1\frac{1}{15}$	3	0
19.	$6\frac{1}{3}$	2	0	39.	$18\frac{7}{8}$	3	0
20.	$\frac{3}{40}$	2	0	40.	$1\frac{1}{12}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $6^2 =$   	<b>2</b> Solve for $x$ $7 + x = 31$  $x =$	<b>3</b> $-10 \cdot 5 =$  	<b>4</b> $2^3 =$  
<b>5</b> Solve for $x$ $3x = 99$  $x =$	<b>6</b> $-5 \cdot -8 =$  	<b>7</b> $-15 - 4 + 1 =$  	<b>8</b> Solve for $x$ $x \div 2 = 23$  $x =$
<b>9</b> Solve for $x$ $7x = 140$  $x =$	<b>10</b> Solve for $x$ $x - 39 = 8$  $x =$	<b>11</b> Convert to fraction $0.61 =$  	<b>12</b> $-12 + -16 + -1 =$  
<b>13</b> Convert to decimal $\frac{3}{5} =$  	<b>14</b> Convert to fraction $0.71 =$  	<b>15</b> Write fraction as mixed number $\frac{10}{4} =$  	<b>16</b> $14^2 =$  
<b>17</b> $-5 - -11 - -13 =$  	<b>18</b> Solve for $x$ $74 = 9x + 2$  $x =$	<b>19</b> Write fraction as mixed number $\frac{5}{2} =$  	<b>20</b> Write the answer in lowest terms $\frac{2}{5} \cdot \frac{2}{5} =$  

Student:

Teacher:

Date:

<b>21</b> 85% of 60=  _____	<b>22</b> Write the answer in lowest terms $\frac{7}{2} \cdot \frac{8}{11} =$  _____	<b>23</b> Solve for x $33 = 5x + 8$  x = _____	<b>24</b> 25% of 20=  _____
<b>25</b> $16^3 =$  _____	<b>26</b> 160% of 150=  _____	<b>27</b> $\begin{array}{r} 1.021 \\ \times 0.13 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.01 \\ \times 0.2 \\ \hline \end{array}$
<b>29</b> 135% of 140=  _____	<b>30</b> Convert to decimal $\frac{21}{24} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{3}{6} \div \frac{9}{10} =$  _____	<b>32</b> $0.2 \overline{)0.32}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{1}{9} \\ + 5 \frac{4}{9} \\ \hline \end{array}$	<b>34</b> $1.4 \overline{)2.24}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{5}{7} \\ - 2 \frac{5}{14} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{3} = 16$  x = _____
<b>37</b> Write the answer in lowest terms $2 \frac{1}{2} \cdot 2 \frac{1}{4} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{8}{9} \div \frac{4}{9} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 9 \frac{3}{4} \\ + 6 \frac{5}{12} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{5}{8} \\ - 3 \frac{2}{8} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 21 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	36	1	0	21.	51	3	0
2.	24	1	0	22.	$2\frac{6}{11}$	2	0
3.	-50	1	0	23.	5	2	0
4.	8	1	0	24.	5	3	0
5.	33	1	0	25.	4096	3	0
6.	40	1	0	26.	240	3	0
7.	-18	2	0	27.	0.13273	3	0
8.	46	1	0	28.	0.202	2	0
9.	20	1	0	29.	189	3	0
10.	47	1	0	30.	0.875	3	0
11.	$\frac{61}{100}$	1	0	31.	$\frac{5}{9}$	3	0
12.	-29	1	0	32.	1.6	3	0
13.	0.6	1	0	33.	$9\frac{5}{9}$	2	0
14.	$\frac{71}{100}$	1	0	34.	1.6	3	0
15.	$2\frac{1}{2}$	2	0	35.	$1\frac{5}{14}$	3	0
16.	196	2	0	36.	48	2	0
17.	19	2	0	37.	$5\frac{5}{8}$	3	0
18.	8	1	0	38.	2	3	0
19.	$2\frac{1}{2}$	2	0	39.	$16\frac{1}{6}$	3	0
20.	$\frac{4}{25}$	2	0	40.	$1\frac{3}{8}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $5^2 =$  _____	<b>2</b> Solve for x $14 + x = 31$  $x =$ _____	<b>3</b> $-13 \bullet 4 =$  _____	<b>4</b> $4^3 =$  _____
<b>5</b> Solve for x $4x = 56$  $x =$ _____	<b>6</b> $-3 \bullet -5 =$  _____	<b>7</b> $-21 - -2 + 16 =$  _____	<b>8</b> Solve for x $x \div 5 = 6$  $x =$ _____
<b>9</b> Solve for x $2x = 94$  $x =$ _____	<b>10</b> Solve for x $x - 32 = 5$  $x =$ _____	<b>11</b> Convert to fraction $0.39 =$  _____	<b>12</b> $-10 + -4 + -12 =$  _____
<b>13</b> Convert to decimal $\frac{9}{10} =$  _____	<b>14</b> Convert to fraction $0.7 =$  _____	<b>15</b> Write fraction as mixed number $\frac{11}{4} =$  _____	<b>16</b> $16^2 =$  _____
<b>17</b> $-3 - -15 - -2 =$  _____	<b>18</b> Solve for x $6 = 2x + 2$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{7}{6} =$  _____	<b>20</b> Write the answer in lowest terms $\frac{1}{4} \bullet \frac{3}{10} =$  _____

Student:

Teacher:

Date:

<b>21</b> 35% of 40=  _____	<b>22</b> Write the answer in lowest terms $\frac{7}{2} \cdot \frac{6}{11} =$  _____	<b>23</b> Solve for x $90 = 9x + 9$  x = _____	<b>24</b> 40% of 55=  _____
<b>25</b> $15^3 =$  _____	<b>26</b> 125% of 144=  _____	<b>27</b> $\begin{array}{r} 1.022 \\ \times 0.14 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.24 \\ \times 0.1 \\ \hline \end{array}$
<b>29</b> 110% of 160=  _____	<b>30</b> Convert to decimal $\frac{5}{8} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{4}{5} \div \frac{8}{9} =$  _____	<b>32</b> $0.3 \overline{)0.21}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{5}{13} \\ + 2 \frac{2}{13} \\ \hline \end{array}$	<b>34</b> $2.2 \overline{)2.42}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{3}{5} \\ - 5 \frac{1}{15} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 24$  x = _____
<b>37</b> Write the answer in lowest terms $5 \frac{1}{2} \cdot 4 \frac{2}{3} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{7}{9} \div \frac{3}{7} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 2 \frac{5}{7} \\ + 3 \frac{5}{14} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{3}{6} \\ - 3 \frac{2}{6} \\ \hline \end{array}$



Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 22 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	25	1	0	21.	14	3	0
2.	17	1	0	22.	$1\frac{10}{11}$	2	0
3.	-52	1	0	23.	9	2	0
4.	64	1	0	24.	22	3	0
5.	14	1	0	25.	3375	3	0
6.	15	1	0	26.	180	3	0
7.	-3	2	0	27.	0.14308	3	0
8.	30	1	0	28.	0.124	2	0
9.	47	1	0	29.	176	3	0
10.	37	1	0	30.	0.625	3	0
11.	$\frac{39}{100}$	1	0	31.	$\frac{9}{10}$	3	0
12.	-26	1	0	32.	0.7	3	0
13.	0.9	1	0	33.	$5\frac{7}{13}$	2	0
14.	$\frac{7}{10}$	1	0	34.	1.1	3	0
15.	$2\frac{3}{4}$	2	0	35.	$1\frac{8}{15}$	3	0
16.	256	2	0	36.	48	2	0
17.	14	2	0	37.	$25\frac{2}{3}$	3	0
18.	2	1	0	38.	$1\frac{22}{27}$	3	0
19.	$1\frac{1}{6}$	2	0	39.	$6\frac{1}{14}$	3	0
20.	$\frac{3}{40}$	2	0	40.	$3\frac{1}{6}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $5^2 =$   	<b>2</b> Solve for $x$ $28 + x = 37$  $x =$	<b>3</b> $-5 \cdot 16 =$  	<b>4</b> $7^3 =$  
<b>5</b> Solve for $x$ $3x = 42$  $x =$	<b>6</b> $-17 \cdot -2 =$  	<b>7</b> $-21 - -29 + 14 =$  	<b>8</b> Solve for $x$ $x \div 6 = 3$  $x =$
<b>9</b> Solve for $x$ $5x = 95$  $x =$	<b>10</b> Solve for $x$ $x - 7 = 33$  $x =$	<b>11</b> Convert to fraction $0.37 =$  	<b>12</b> $-8 + -4 + -9 =$  
<b>13</b> Convert to decimal $\frac{3}{10} =$  	<b>14</b> Convert to fraction $0.21 =$  	<b>15</b> Write fraction as mixed number $\frac{24}{5} =$  	<b>16</b> $13^2 =$  
<b>17</b> $-6 - -9 - -12 =$  	<b>18</b> Solve for $x$ $66 = 8x + 2$  $x =$	<b>19</b> Write fraction as mixed number $\frac{21}{6} =$  	<b>20</b> Write the answer in lowest terms $\frac{3}{4} \cdot \frac{5}{9} =$  

Student:

Teacher:

Date:

<b>21</b> 55% of 20=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{7} \cdot \frac{9}{11} =$  _____	<b>23</b> Solve for x $30 = 9x + 3$  x = _____	<b>24</b> 25% of 60=  _____
<b>25</b> $15^3 =$  _____	<b>26</b> 125% of 120=  _____	<b>27</b> $\begin{array}{r} 1.003 \\ \times 0.14 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.25 \\ \times 0.2 \\ \hline \end{array}$
<b>29</b> 160% of 140=  _____	<b>30</b> Convert to decimal $\frac{2}{16} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{2}{3} \div \frac{6}{8} =$  _____	<b>32</b> $0.2 \overline{)0.24}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 1 \frac{1}{13} \\ + 2 \frac{4}{13} \\ \hline \end{array}$	<b>34</b> $1.3 \overline{)1.43}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{5}{8} \\ - 5 \frac{3}{16} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 8$  x = _____
<b>37</b> Write the answer in lowest terms $2 \frac{1}{3} \cdot 2 \frac{1}{3} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{9}{10} \div \frac{6}{7} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{5}{8} \\ + 2 \frac{5}{16} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 7 \frac{3}{4} \\ - 5 \frac{2}{4} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 23 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	25	1	0	21.	11	3	0
2.	9	1	0	22.	$1\frac{4}{77}$	2	0
3.	-80	1	0	23.	3	2	0
4.	343	1	0	24.	15	3	0
5.	14	1	0	25.	3375	3	0
6.	34	1	0	26.	150	3	0
7.	22	2	0	27.	0.14042	3	0
8.	18	1	0	28.	0.25	2	0
9.	19	1	0	29.	224	3	0
10.	40	1	0	30.	0.125	3	0
11.	$\frac{37}{100}$	1	0	31.	$\frac{8}{9}$	3	0
12.	-21	1	0	32.	1.2	3	0
13.	0.3	1	0	33.	$3\frac{5}{13}$	2	0
14.	$\frac{21}{100}$	1	0	34.	1.1	3	0
15.	$4\frac{4}{5}$	2	0	35.	$1\frac{7}{16}$	3	0
16.	169	2	0	36.	16	2	0
17.	15	2	0	37.	$5\frac{4}{9}$	3	0
18.	8	1	0	38.	$1\frac{1}{20}$	3	0
19.	$3\frac{1}{2}$	2	0	39.	$8\frac{15}{16}$	3	0
20.	$\frac{5}{12}$	2	0	40.	$2\frac{1}{4}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $5^2 =$  _____	<b>2</b> Solve for $x$ $26 + x = 34$  $x =$ _____	<b>3</b> $-8 \bullet 4 =$  _____	<b>4</b> $7^3 =$  _____
<b>5</b> Solve for $x$ $8x = 96$  $x =$ _____	<b>6</b> $-14 \bullet -3 =$  _____	<b>7</b> $-28 - -19 + 16 =$  _____	<b>8</b> Solve for $x$ $x \div 4 = 6$  $x =$ _____
<b>9</b> Solve for $x$ $2x = 52$  $x =$ _____	<b>10</b> Solve for $x$ $x - 9 = 22$  $x =$ _____	<b>11</b> Convert to fraction $0.79 =$  _____	<b>12</b> $-5 + -10 + -2 =$  _____
<b>13</b> Convert to decimal $\frac{1}{2} =$  _____	<b>14</b> Convert to fraction $0.49 =$  _____	<b>15</b> Write fraction as mixed number $\frac{22}{4} =$  _____	<b>16</b> $19^2 =$  _____
<b>17</b> $-8 - -6 - -13 =$  _____	<b>18</b> Solve for $x$ $15 = 2x + 5$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{23}{5} =$  _____	<b>20</b> Write the answer in lowest terms $\frac{2}{5} \bullet \frac{1}{2} =$  _____

Student:

Teacher:

Date:

<b>21</b> 30% of 10=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{3} \cdot \frac{6}{11} =$  _____	<b>23</b> Solve for x $8 = 3x + 2$  x = _____	<b>24</b> 40% of 70=  _____
<b>25</b> $14^3 =$  _____	<b>26</b> 175% of 120=  _____	<b>27</b> $\begin{array}{r} 1.012 \\ \times 0.15 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.22 \\ \times 0.3 \\ \hline \end{array}$
<b>29</b> 200% of 130=  _____	<b>30</b> Convert to decimal $\frac{7}{8} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{4}{6} \div \frac{5}{6} =$  _____	<b>32</b> $0.2 \overline{)0.14}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{2}{7} \\ + 3 \frac{2}{7} \\ \hline \end{array}$	<b>34</b> $3.2 \overline{)2.24}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 2 \frac{5}{7} \\ - 1 \frac{5}{14} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 5$  x = _____
<b>37</b> Write the answer in lowest terms $2 \frac{2}{3} \cdot 1 \frac{1}{6} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{8}{9} \div \frac{7}{8} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{5}{7} \\ + 2 \frac{5}{14} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{5}{7} \\ - 3 \frac{2}{7} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 24 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	25	1	0	21.	3	3	0
2.	8	1	0	22.	$1\frac{7}{11}$	2	0
3.	-32	1	0	23.	2	2	0
4.	343	1	0	24.	28	3	0
5.	12	1	0	25.	2744	3	0
6.	42	1	0	26.	210	3	0
7.	7	2	0	27.	0.1518	3	0
8.	24	1	0	28.	0.366	2	0
9.	26	1	0	29.	260	3	0
10.	31	1	0	30.	0.875	3	0
11.	$\frac{79}{100}$	1	0	31.	$\frac{4}{5}$	3	0
12.	-17	1	0	32.	0.7	3	0
13.	0.5	1	0	33.	$6\frac{4}{7}$	2	0
14.	$\frac{49}{100}$	1	0	34.	0.7	3	0
15.	$5\frac{1}{2}$	2	0	35.	$1\frac{5}{14}$	3	0
16.	361	2	0	36.	10	2	0
17.	11	2	0	37.	$3\frac{1}{9}$	3	0
18.	5	1	0	38.	$1\frac{1}{63}$	3	0
19.	$4\frac{3}{5}$	2	0	39.	$7\frac{1}{14}$	3	0
20.	$\frac{1}{5}$	2	0	40.	$1\frac{3}{7}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $8^2 =$  _____	<b>2</b> Solve for x $29 + x = 50$  $x =$ _____	<b>3</b> $-2 \cdot 12 =$  _____	<b>4</b> $3^3 =$  _____
<b>5</b> Solve for x $3x = 75$  $x =$ _____	<b>6</b> $-16 \cdot -5 =$  _____	<b>7</b> $-30 + 26 - 11 =$  _____	<b>8</b> Solve for x $x \div 3 = 12$  $x =$ _____
<b>9</b> Solve for x $6x = 96$  $x =$ _____	<b>10</b> Solve for x $x - 5 = 40$  $x =$ _____	<b>11</b> Convert to fraction $0.83 =$  _____	<b>12</b> $-3 + -16 + -6 =$  _____
<b>13</b> Convert to decimal $\frac{2}{10} =$  _____	<b>14</b> Convert to fraction $0.29 =$  _____	<b>15</b> Write fraction as mixed number $\frac{5}{4} =$  _____	<b>16</b> $12^2 =$  _____
<b>17</b> $-14 - -3 - -15 =$  _____	<b>18</b> Solve for x $30 = 7x + 2$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{16}{6} =$  _____	<b>20</b> Write the answer in lowest terms $\frac{4}{7} \cdot \frac{3}{10} =$  _____



Student:

Teacher:

Date:

<b>21</b> 25% of 60=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{4} \cdot \frac{7}{11} =$  _____	<b>23</b> Solve for x $48 = 5x + 8$  x = _____	<b>24</b> 85% of 20=  _____
<b>25</b> $13^3 =$  _____	<b>26</b> 105% of 140=  _____	<b>27</b> $\begin{array}{r} 1.015 \\ \times 0.12 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.25 \\ \times 0.5 \\ \hline \end{array}$
<b>29</b> 125% of 180=  _____	<b>30</b> Convert to decimal $\frac{6}{16} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{1}{5} \div \frac{8}{9} =$  _____	<b>32</b> $0.4 \overline{)0.44}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 1 \frac{5}{12} \\ + 2 \frac{2}{12} \\ \hline \end{array}$	<b>34</b> $1.3 \overline{)2.21}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{3}{4} \\ - 4 \frac{1}{2} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{6} = 2$  x = _____
<b>37</b> Write the answer in lowest terms $2 \frac{1}{2} \cdot 2 \frac{2}{3} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{7}{9} \div \frac{6}{9} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{5}{6} \\ + 3 \frac{4}{18} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{4}{5} \\ - 1 \frac{1}{5} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 25 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	64	1	0	21.	15	3	0
2.	21	1	0	22.	$1\frac{19}{44}$	2	0
3.	-24	1	0	23.	8	2	0
4.	27	1	0	24.	17	3	0
5.	25	1	0	25.	2197	3	0
6.	80	1	0	26.	147	3	0
7.	-15	2	0	27.	0.1218	3	0
8.	36	1	0	28.	0.625	2	0
9.	16	1	0	29.	225	3	0
10.	45	1	0	30.	0.375	3	0
11.	$\frac{83}{100}$	1	0	31.	$\frac{9}{40}$	3	0
12.	-25	1	0	32.	1.1	3	0
13.	0.2	1	0	33.	$3\frac{7}{12}$	2	0
14.	$\frac{29}{100}$	1	0	34.	1.7	3	0
15.	$1\frac{1}{4}$	2	0	35.	$1\frac{1}{4}$	3	0
16.	144	2	0	36.	12	2	0
17.	4	2	0	37.	$6\frac{2}{3}$	3	0
18.	4	1	0	38.	$1\frac{1}{6}$	3	0
19.	$2\frac{2}{3}$	2	0	39.	$10\frac{1}{18}$	3	0
20.	$\frac{6}{35}$	2	0	40.	$3\frac{3}{5}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $3^2 =$   	<b>2</b> Solve for x $36 + x = 44$  $x =$	<b>3</b> $-13 \cdot 2 =$  	<b>4</b> $4^3 =$  
<b>5</b> Solve for x $3x = 93$  $x =$	<b>6</b> $-17 \cdot -5 =$  	<b>7</b> $-11 - -3 + 22 =$  	<b>8</b> Solve for x $x \div 4 = 9$  $x =$
<b>9</b> Solve for x $2x = 50$  $x =$	<b>10</b> Solve for x $x - 48 = 1$  $x =$	<b>11</b> Convert to fraction $0.13 =$  	<b>12</b> $-14 + -8 + -2 =$  
<b>13</b> Convert to decimal $\frac{2}{4} =$  	<b>14</b> Convert to fraction $0.99 =$  	<b>15</b> Write fraction as mixed number $\frac{25}{6} =$  	<b>16</b> $14^2 =$  
<b>17</b> $-20 - -5 - -10 =$  	<b>18</b> Solve for x $55 = 7x + 6$  $x =$	<b>19</b> Write fraction as mixed number $\frac{11}{5} =$  	<b>20</b> Write the answer in lowest terms $\frac{2}{3} \cdot \frac{4}{5} =$  

Student:

Teacher:

Date:

<b>21</b> 60% of 80=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{2} \cdot \frac{7}{11} =$  _____	<b>23</b> Solve for x $19 = 4x + 3$  x = _____	<b>24</b> 80% of 75=  _____
<b>25</b> $16^3 =$  _____	<b>26</b> 170% of 110=  _____	<b>27</b> $\begin{array}{r} 1.015 \\ \times 0.13 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.25 \\ \times 0.1 \\ \hline \end{array}$
<b>29</b> 160% of 130=  _____	<b>30</b> Convert to decimal $\frac{7}{8} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{1}{8} \div \frac{8}{9} =$  _____	<b>32</b> $0.3 \overline{)0.42}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{1}{9} \\ + 2 \frac{1}{9} \\ \hline \end{array}$	<b>34</b> $4.3 \overline{)2.15}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{5}{7} \\ - 3 \frac{5}{14} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{8} = 3$  x = _____
<b>37</b> Write the answer in lowest terms $4 \frac{1}{2} \cdot 4 \frac{1}{4} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{2}{3} \div \frac{1}{2} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{2}{3} \\ + 1 \frac{3}{6} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{3}{6} \\ - 3 \frac{2}{6} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 26 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	9	1	0	21.	48	3	0
2.	8	1	0	22.	$2\frac{19}{22}$	2	0
3.	-26	1	0	23.	4	2	0
4.	64	1	0	24.	60	3	0
5.	31	1	0	25.	4096	3	0
6.	85	1	0	26.	187	3	0
7.	14	2	0	27.	0.13195	3	0
8.	36	1	0	28.	0.125	2	0
9.	25	1	0	29.	208	3	0
10.	49	1	0	30.	0.875	3	0
11.	$\frac{13}{100}$	1	0	31.	$\frac{9}{64}$	3	0
12.	-24	1	0	32.	1.4	3	0
13.	0.5	1	0	33.	$8\frac{2}{9}$	2	0
14.	$\frac{99}{100}$	1	0	34.	0.5	3	0
15.	$4\frac{1}{6}$	2	0	35.	$1\frac{5}{14}$	3	0
16.	196	2	0	36.	24	2	0
17.	-5	2	0	37.	$19\frac{1}{8}$	3	0
18.	7	1	0	38.	$1\frac{1}{3}$	3	0
19.	$2\frac{1}{5}$	2	0	39.	$7\frac{1}{6}$	3	0
20.	$\frac{8}{15}$	2	0	40.	$3\frac{1}{6}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $1^2 =$   	<b>2</b> Solve for $x$ $16 + x = 33$  $x =$	<b>3</b> $-4 \bullet 14 =$  	<b>4</b> $6^3 =$  
<b>5</b> Solve for $x$ $2x = 64$  $x =$	<b>6</b> $-3 \bullet -6 =$  	<b>7</b> $-2 + -3 - 9 =$  	<b>8</b> Solve for $x$ $x \div 9 = 3$  $x =$
<b>9</b> Solve for $x$ $3x = 54$  $x =$	<b>10</b> Solve for $x$ $x - 6 = 30$  $x =$	<b>11</b> Convert to fraction $0.71 =$  	<b>12</b> $-10 + -8 + -1 =$  
<b>13</b> Convert to decimal $\frac{2}{10} =$  	<b>14</b> Convert to fraction $0.31 =$  	<b>15</b> Write fraction as mixed number $\frac{15}{4} =$  	<b>16</b> $16^2 =$  
<b>17</b> $-15 - -10 - -2 =$  	<b>18</b> Solve for $x$ $10 = 4x + 2$  $x =$	<b>19</b> Write fraction as mixed number $\frac{29}{2} =$  	<b>20</b> Write the answer in lowest terms $\frac{3}{4} \bullet \frac{4}{9} =$  

Student:

Teacher:

Date:

<b>21</b> 55% of 80=  _____	<b>22</b> Write the answer in lowest terms $\frac{7}{2} \cdot \frac{5}{11} =$  _____	<b>23</b> Solve for x $63 = 6x + 9$  x = _____	<b>24</b> 35% of 20=  _____
<b>25</b> $11^3 =$  _____	<b>26</b> 160% of 160=  _____	<b>27</b> $\begin{array}{r} 1.022 \\ \times 0.13 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.23 \\ \times 0.3 \\ \hline \end{array}$
<b>29</b> 190% of 170=  _____	<b>30</b> Convert to decimal $\frac{1}{8} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{1}{5} \div \frac{1}{3} =$  _____	<b>32</b> $0.2 \overline{)0.04}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 1 \frac{1}{13} \\ + 2 \frac{4}{13} \\ \hline \end{array}$	<b>34</b> $2.4 \overline{)3.12}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 2 \frac{2}{6} \\ - 1 \frac{2}{12} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 15$  x = _____
<b>37</b> Write the answer in lowest terms $5 \frac{1}{2} \cdot 5 \frac{1}{2} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{9}{10} \div \frac{6}{7} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 2 \frac{3}{5} \\ + 4 \frac{5}{10} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{4}{5} \\ - 2 \frac{3}{5} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 27 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	1	1	0	21.	44	3	0
2.	17	1	0	22.	$1\frac{13}{22}$	2	0
3.	-56	1	0	23.	9	2	0
4.	216	1	0	24.	7	3	0
5.	32	1	0	25.	1331	3	0
6.	18	1	0	26.	256	3	0
7.	-14	2	0	27.	0.13286	3	0
8.	27	1	0	28.	0.369	2	0
9.	18	1	0	29.	323	3	0
10.	36	1	0	30.	0.125	3	0
11.	$\frac{71}{100}$	1	0	31.	$\frac{3}{5}$	3	0
12.	-19	1	0	32.	0.2	3	0
13.	0.2	1	0	33.	$3\frac{5}{13}$	2	0
14.	$\frac{31}{100}$	1	0	34.	1.3	3	0
15.	$3\frac{3}{4}$	2	0	35.	$1\frac{1}{6}$	3	0
16.	256	2	0	36.	30	2	0
17.	-3	2	0	37.	$30\frac{1}{4}$	3	0
18.	2	1	0	38.	$1\frac{1}{20}$	3	0
19.	$14\frac{1}{2}$	2	0	39.	$7\frac{1}{10}$	3	0
20.	$\frac{1}{3}$	2	0	40.	$3\frac{1}{5}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2



Student:

Teacher:

Date:

<b>1</b> $9^2 =$  _____	<b>2</b> Solve for $x$ $9 + x = 14$  $x =$ _____	<b>3</b> $-6 \bullet 4 =$  _____	<b>4</b> $3^3 =$  _____
<b>5</b> Solve for $x$ $3x = 51$  $x =$ _____	<b>6</b> $-5 \bullet -7 =$  _____	<b>7</b> $-9 + -30 - 18 =$  _____	<b>8</b> Solve for $x$ $x \div 3 = 10$  $x =$ _____
<b>9</b> Solve for $x$ $4x = 52$  $x =$ _____	<b>10</b> Solve for $x$ $x - 41 = 4$  $x =$ _____	<b>11</b> Convert to fraction $0.81 =$  _____	<b>12</b> $-10 + -19 + -5 =$  _____
<b>13</b> Convert to decimal $\frac{4}{8} =$  _____	<b>14</b> Convert to fraction $0.7 =$  _____	<b>15</b> Write fraction as mixed number $\frac{10}{6} =$  _____	<b>16</b> $12^2 =$  _____
<b>17</b> $-10 - -8 - -1 =$  _____	<b>18</b> Solve for $x$ $35 = 4x + 7$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{23}{4} =$  _____	<b>20</b> Write the answer in lowest terms $\frac{1}{3} \bullet \frac{1}{5} =$  _____

Student:

Teacher:

Date:

<b>21</b> 50% of 10=  _____	<b>22</b> Write the answer in lowest terms $\frac{7}{2} \cdot \frac{7}{11} =$  _____	<b>23</b> Solve for x $12 = 5x + 2$  x = _____	<b>24</b> 15% of 20=  _____
<b>25</b> $13^3 =$  _____	<b>26</b> 195% of 140=  _____	<b>27</b> $\begin{array}{r} 1.023 \\ \times 0.14 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.23 \\ \times 0.5 \\ \hline \end{array}$
<b>29</b> 130% of 140=  _____	<b>30</b> Convert to decimal $\frac{15}{24} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{2}{4} \div \frac{5}{6} =$  _____	<b>32</b> $0.4 \overline{)0.32}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{4}{12} \\ + 3 \frac{3}{12} \\ \hline \end{array}$	<b>34</b> $1.4 \overline{)1.12}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{5}{6} \\ - 1 \frac{1}{2} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{6} = 7$  x = _____
<b>37</b> Write the answer in lowest terms $3 \frac{1}{2} \cdot 3 \frac{1}{2} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{8}{9} \div \frac{6}{7} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{5}{7} \\ + 1 \frac{5}{14} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{5}{8} \\ - 1 \frac{2}{8} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 28 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	81	1	0	21.	5	3	0
2.	5	1	0	22.	$2\frac{5}{22}$	2	0
3.	-24	1	0	23.	2	2	0
4.	27	1	0	24.	3	3	0
5.	17	1	0	25.	2197	3	0
6.	35	1	0	26.	273	3	0
7.	-57	2	0	27.	0.14322	3	0
8.	30	1	0	28.	0.615	2	0
9.	13	1	0	29.	182	3	0
10.	45	1	0	30.	0.625	3	0
11.	$\frac{81}{100}$	1	0	31.	$\frac{3}{5}$	3	0
12.	-34	1	0	32.	0.8	3	0
13.	0.5	1	0	33.	$8\frac{7}{12}$	2	0
14.	$\frac{7}{10}$	1	0	34.	0.8	3	0
15.	$1\frac{2}{3}$	2	0	35.	$5\frac{1}{3}$	3	0
16.	144	2	0	36.	42	2	0
17.	-1	2	0	37.	$12\frac{1}{4}$	3	0
18.	7	1	0	38.	$1\frac{1}{27}$	3	0
19.	$5\frac{3}{4}$	2	0	39.	$7\frac{1}{14}$	3	0
20.	$\frac{1}{15}$	2	0	40.	$5\frac{3}{8}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $8^2 =$  _____	<b>2</b> Solve for $x$ $9 + x = 47$  $x =$ _____	<b>3</b> $-17 \cdot 2 =$  _____	<b>4</b> $3^3 =$  _____
<b>5</b> Solve for $x$ $2x = 96$  $x =$ _____	<b>6</b> $-4 \cdot -12 =$  _____	<b>7</b> $-24 + 5 - 25 =$  _____	<b>8</b> Solve for $x$ $x \div 4 = 7$  $x =$ _____
<b>9</b> Solve for $x$ $3x = 48$  $x =$ _____	<b>10</b> Solve for $x$ $x - 42 = 3$  $x =$ _____	<b>11</b> Convert to fraction $0.59 =$  _____	<b>12</b> $-8 + -5 + -7 =$  _____
<b>13</b> Convert to decimal $\frac{6}{10} =$  _____	<b>14</b> Convert to fraction $0.17 =$  _____	<b>15</b> Write fraction as mixed number $\frac{5}{3} =$  _____	<b>16</b> $16^2 =$  _____
<b>17</b> $-3 - -12 - -15 =$  _____	<b>18</b> Solve for $x$ $85 = 9x + 4$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{14}{5} =$  _____	<b>20</b> Write the answer in lowest terms $\frac{1}{2} \cdot \frac{1}{6} =$  _____

Student:

Teacher:

Date:

<b>21</b> 30% of 20=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{3} \cdot \frac{5}{11} =$  _____	<b>23</b> Solve for x $34 = 8x + 2$  x = _____	<b>24</b> 10% of 80=  _____
<b>25</b> $18^3 =$  _____	<b>26</b> 125% of 120=  _____	<b>27</b> $\begin{array}{r} 1.002 \\ \times 0.13 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.03 \\ \times 0.4 \\ \hline \end{array}$
<b>29</b> 200% of 150=  _____	<b>30</b> Convert to decimal $\frac{2}{16} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{2}{8} \div \frac{4}{5} =$  _____	<b>32</b> $0.5 \overline{)0.25}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{1}{9} \\ + 5 \frac{4}{9} \\ \hline \end{array}$	<b>34</b> $1.3 \overline{)3.12}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 2 \frac{5}{7} \\ - 1 \frac{5}{14} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{2} = 19$  x = _____
<b>37</b> Write the answer in lowest terms $2 \frac{4}{9} \cdot 3 \frac{2}{7} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{2}{3} \div \frac{1}{5} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{1}{8} \\ + 3 \frac{15}{16} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 7 \frac{8}{13} \\ - 4 \frac{3}{13} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 29 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	64	1	0	21.	6	3	0
2.	38	1	0	22.	$1\frac{4}{11}$	2	0
3.	-34	1	0	23.	4	2	0
4.	27	1	0	24.	8	3	0
5.	48	1	0	25.	5832	3	0
6.	48	1	0	26.	150	3	0
7.	-44	2	0	27.	0.13026	3	0
8.	28	1	0	28.	0.412	2	0
9.	16	1	0	29.	300	3	0
10.	45	1	0	30.	0.125	3	0
11.	$\frac{59}{100}$	1	0	31.	$\frac{5}{16}$	3	0
12.	-20	1	0	32.	0.5	3	0
13.	0.6	1	0	33.	$11\frac{5}{9}$	2	0
14.	$\frac{17}{100}$	1	0	34.	2.4	3	0
15.	$1\frac{2}{3}$	2	0	35.	$1\frac{5}{14}$	3	0
16.	256	2	0	36.	38	2	0
17.	24	2	0	37.	$8\frac{2}{63}$	3	0
18.	9	1	0	38.	$3\frac{1}{3}$	3	0
19.	$2\frac{4}{5}$	2	0	39.	$7\frac{1}{16}$	3	0
20.	$\frac{1}{12}$	2	0	40.	$3\frac{5}{13}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $6^2 =$   	<b>2</b> Solve for x $15 + x = 34$  $x =$ _____	<b>3</b> $-12 \cdot 5 =$   	<b>4</b> $8^3 =$   
<b>5</b> Solve for x $2x = 86$  $x =$ _____	<b>6</b> $-4 \cdot -10 =$   	<b>7</b> $-18 + -23 - 29 =$   	<b>8</b> Solve for x $x \div 2 = 14$  $x =$ _____
<b>9</b> Solve for x $3x = 45$  $x =$ _____	<b>10</b> Solve for x $x - 9 = 30$  $x =$ _____	<b>11</b> Convert to fraction $0.73 =$   	<b>12</b> $-12 + -7 + -9 =$   
<b>13</b> Convert to decimal $\frac{1}{2} =$   	<b>14</b> Convert to fraction $0.79 =$   	<b>15</b> Write fraction as mixed number $\frac{19}{5} =$   	<b>16</b> $19^2 =$   
<b>17</b> $-5 - -8 - -8 =$   	<b>18</b> Solve for x $70 = 8x + 6$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{14}{4} =$   	<b>20</b> Write the answer in lowest terms $\frac{3}{5} \cdot \frac{8}{9} =$   

Student:

Teacher:

Date:

<b>21</b> 10% of 10=    	<b>22</b> Write the answer in lowest terms $\frac{9}{2} \cdot \frac{9}{11} =$  	<b>23</b> Solve for x $16 = 7x + 2$   x = _____	<b>24</b> 40% of 60=   
<b>25</b> $12^3 =$   	<b>26</b> 110% of 140=   	<b>27</b> $\begin{array}{r} 1.021 \\ \times 0.12 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.25 \\ \times 0.3 \\ \hline \end{array}$
<b>29</b> 180% of 130=   	<b>30</b> Convert to decimal $\frac{9}{24} =$  	<b>31</b> Write the answer in lowest terms $\frac{2}{6} \div \frac{5}{8} =$  	<b>32</b> $0.2 \overline{)0.22}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{1}{12} \\ + 3 \frac{4}{12} \\ \hline \end{array}$	<b>34</b> $2.5 \overline{)1.25}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{5}{8} \\ - 5 \frac{3}{16} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{5} = 2$   x = _____
<b>37</b> Write the answer in lowest terms $4 \frac{1}{3} \cdot 4 \frac{1}{4} =$   	<b>38</b> Write the answer in lowest terms $\frac{6}{8} \div \frac{4}{7} =$  	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 14 \frac{2}{3} \\ + 3 \frac{5}{6} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{5}{11} \\ - 2 \frac{2}{11} \\ \hline \end{array}$



Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 30 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	36	1	0	21.	1	3	0
2.	19	1	0	22.	$3\frac{15}{22}$	2	0
3.	-60	1	0	23.	2	2	0
4.	512	1	0	24.	24	3	0
5.	43	1	0	25.	1728	3	0
6.	40	1	0	26.	154	3	0
7.	-70	2	0	27.	0.12252	3	0
8.	28	1	0	28.	0.375	2	0
9.	15	1	0	29.	234	3	0
10.	39	1	0	30.	0.375	3	0
11.	$\frac{73}{100}$	1	0	31.	$\frac{8}{15}$	3	0
12.	-28	1	0	32.	1.1	3	0
13.	0.5	1	0	33.	$9\frac{5}{12}$	2	0
14.	$\frac{79}{100}$	1	0	34.	0.5	3	0
15.	$3\frac{4}{5}$	2	0	35.	$1\frac{7}{16}$	3	0
16.	361	2	0	36.	10	2	0
17.	11	2	0	37.	$18\frac{5}{12}$	3	0
18.	8	1	0	38.	$1\frac{5}{16}$	3	0
19.	$3\frac{1}{2}$	2	0	39.	$18\frac{1}{2}$	3	0
20.	$\frac{8}{15}$	2	0	40.	$3\frac{3}{11}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $4^2 =$   	<b>2</b> Solve for $x$ $38 + x = 45$  $x =$	<b>3</b> $-6 \bullet 2 =$  	<b>4</b> $7^3 =$  
<b>5</b> Solve for $x$ $5x = 70$  $x =$	<b>6</b> $-2 \bullet -13 =$  	<b>7</b> $-2 - 22 + 18 =$  	<b>8</b> Solve for $x$ $x \div 7 = 5$  $x =$
<b>9</b> Solve for $x$ $3x = 69$  $x =$	<b>10</b> Solve for $x$ $x - 2 = 36$  $x =$	<b>11</b> Convert to fraction $0.57 =$  	<b>12</b> $-7 + -15 + -9 =$  
<b>13</b> Convert to decimal $\frac{4}{10} =$  	<b>14</b> Convert to fraction $0.77 =$  	<b>15</b> Write fraction as mixed number $\frac{29}{4} =$  	<b>16</b> $17^2 =$  
<b>17</b> $-11 - -15 - -5 =$  	<b>18</b> Solve for $x$ $69 = 8x + 5$  $x =$	<b>19</b> Write fraction as mixed number $\frac{18}{5} =$  	<b>20</b> Write the answer in lowest terms $\frac{3}{4} \bullet \frac{7}{9} =$  

Student:

Teacher:

Date:

<b>21</b> 60% of 55=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{3} \cdot \frac{9}{11} =$  _____	<b>23</b> Solve for x $37 = 5x + 2$  x = _____	<b>24</b> 45% of 80=  _____
<b>25</b> $15^3 =$  _____	<b>26</b> 110% of 130=  _____	<b>27</b> $\begin{array}{r} 1.013 \\ \times 0.12 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.24 \\ \times 0.5 \\ \hline \end{array}$
<b>29</b> 175% of 120=  _____	<b>30</b> Convert to decimal $\frac{5}{8} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{2}{6} \div \frac{5}{8} =$  _____	<b>32</b> $0.2 \overline{)0.54}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 1 \frac{1}{13} \\ + 2 \frac{4}{13} \\ \hline \end{array}$	<b>34</b> $2.4 \overline{)1.44}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{5}{8} \\ - 3 \frac{3}{16} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{3} = 9$  x = _____
<b>37</b> Write the answer in lowest terms $1 \frac{1}{3} \cdot 1 \frac{1}{5} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{9}{10} \div \frac{3}{4} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 4 \frac{5}{7} \\ + 2 \frac{5}{14} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 6 \frac{4}{5} \\ - 5 \frac{2}{5} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 31 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	16	1	0	21.	33	3	0
2.	7	1	0	22.	$2\frac{5}{11}$	2	0
3.	-12	1	0	23.	7	2	0
4.	343	1	0	24.	36	3	0
5.	14	1	0	25.	3375	3	0
6.	26	1	0	26.	143	3	0
7.	-6	2	0	27.	0.12156	3	0
8.	35	1	0	28.	0.62	2	0
9.	23	1	0	29.	210	3	0
10.	38	1	0	30.	0.625	3	0
11.	$\frac{57}{100}$	1	0	31.	$\frac{8}{15}$	3	0
12.	-31	1	0	32.	2.7	3	0
13.	0.4	1	0	33.	$3\frac{5}{13}$	2	0
14.	$\frac{77}{100}$	1	0	34.	0.6	3	0
15.	$7\frac{1}{4}$	2	0	35.	$1\frac{7}{16}$	3	0
16.	289	2	0	36.	27	2	0
17.	9	2	0	37.	$1\frac{3}{5}$	3	0
18.	8	1	0	38.	$1\frac{1}{5}$	3	0
19.	$3\frac{3}{5}$	2	0	39.	$7\frac{1}{14}$	3	0
20.	$\frac{7}{12}$	2	0	40.	$1\frac{2}{5}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $4^2 =$  _____	<b>2</b> Solve for $x$ $8 + x = 31$  $x =$ _____	<b>3</b> $-3 \cdot 17 =$  _____	<b>4</b> $7^3 =$  _____
<b>5</b> Solve for $x$ $2x = 54$  $x =$ _____	<b>6</b> $-16 \cdot -2 =$  _____	<b>7</b> $-14 + -4 - 15 =$  _____	<b>8</b> Solve for $x$ $x \div 5 = 9$  $x =$ _____
<b>9</b> Solve for $x$ $4x = 92$  $x =$ _____	<b>10</b> Solve for $x$ $x - 35 = 3$  $x =$ _____	<b>11</b> Convert to fraction $0.59 =$  _____	<b>12</b> $-13 + -9 + -12 =$  _____
<b>13</b> Convert to decimal $\frac{8}{10} =$  _____	<b>14</b> Convert to fraction $0.97 =$  _____	<b>15</b> Write fraction as mixed number $\frac{27}{5} =$  _____	<b>16</b> $11^2 =$  _____
<b>17</b> $-15 - -1 - -7 =$  _____	<b>18</b> Solve for $x$ $86 = 9x + 5$  $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{14}{6} =$  _____	<b>20</b> Write the answer in lowest terms $\frac{1}{2} \cdot \frac{1}{4} =$  _____

Student:

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<b>21</b> 25% of 20=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{5} \cdot \frac{8}{11} =$  _____	<b>23</b> Solve for x $44 = 7x + 2$  x = _____	<b>24</b> 20% of 45=  _____
<b>25</b> $13^3 =$  _____	<b>26</b> 105% of 180=  _____	<b>27</b> $\begin{array}{r} 1.012 \\ \times 0.14 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.04 \\ \times 0.3 \\ \hline \end{array}$
<b>29</b> 195% of 140=  _____	<b>30</b> Convert to decimal $\frac{10}{16} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{2}{6} \div \frac{2}{3} =$  _____	<b>32</b> $0.2 \overline{)0.24}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 3 \frac{5}{14} \\ + 6 \frac{4}{14} \\ \hline \end{array}$	<b>34</b> $1.2 \overline{)2.04}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{4}{9} \\ - 4 \frac{1}{3} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{9} = 4$  x = _____
<b>37</b> Write the answer in lowest terms $1 \frac{1}{3} \cdot 1 \frac{3}{4} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{7}{9} \div \frac{3}{7} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 16 \frac{5}{7} \\ + 3 \frac{5}{14} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 5 \frac{5}{9} \\ - 3 \frac{4}{9} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 32 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	16	1	0	21.	5	3	0
2.	23	1	0	22.	$1\frac{17}{55}$	2	0
3.	-51	1	0	23.	6	2	0
4.	343	1	0	24.	9	3	0
5.	27	1	0	25.	2197	3	0
6.	32	1	0	26.	189	3	0
7.	-33	2	0	27.	0.14168	3	0
8.	45	1	0	28.	0.312	2	0
9.	23	1	0	29.	273	3	0
10.	38	1	0	30.	0.625	3	0
11.	$\frac{59}{100}$	1	0	31.	$\frac{1}{2}$	3	0
12.	-34	1	0	32.	1.2	3	0
13.	0.8	1	0	33.	$9\frac{9}{14}$	2	0
14.	$\frac{97}{100}$	1	0	34.	1.7	3	0
15.	$5\frac{2}{5}$	2	0	35.	$1\frac{1}{9}$	3	0
16.	121	2	0	36.	36	2	0
17.	-7	2	0	37.	$2\frac{1}{3}$	3	0
18.	9	1	0	38.	$1\frac{22}{27}$	3	0
19.	$2\frac{1}{3}$	2	0	39.	$20\frac{1}{14}$	3	0
20.	$\frac{1}{8}$	2	0	40.	$2\frac{1}{9}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $4^2 =$    	<b>2</b> Solve for $x$ $16 + x = 49$  $x =$ _____	<b>3</b> $-4 \cdot 11 =$    	<b>4</b> $8^3 =$    
<b>5</b> Solve for $x$ $2x = 92$   $x =$ _____	<b>6</b> $-11 \cdot -4 =$    	<b>7</b> $-9 + -8 - 26 =$    	<b>8</b> Solve for $x$ $x \div 5 = 4$   $x =$ _____
<b>9</b> Solve for $x$ $3x = 81$   $x =$ _____	<b>10</b> Solve for $x$ $x - 9 = 38$   $x =$ _____	<b>11</b> Convert to fraction $0.23 =$    	<b>12</b> $-13 + -1 + -9 =$    
<b>13</b> Convert to decimal $\frac{7}{10} =$    	<b>14</b> Convert to fraction $0.41 =$    	<b>15</b> Write fraction as mixed number $\frac{23}{3} =$    	<b>16</b> $13^2 =$    
<b>17</b> $-2 - -4 - -13 =$    	<b>18</b> Solve for $x$ $72 = 8x + 8$   $x =$ _____	<b>19</b> Write fraction as mixed number $\frac{28}{5} =$    	<b>20</b> Write the answer in lowest terms $\frac{2}{5} \cdot \frac{2}{3} =$    



Student:

Teacher:

Date:

<b>21</b> 40% of 85=  _____	<b>22</b> Write the answer in lowest terms $\frac{9}{6} \cdot \frac{8}{11} =$  _____	<b>23</b> Solve for x $40 = 9x + 4$  x = _____	<b>24</b> 55% of 20=  _____
<b>25</b> $12^3 =$  _____	<b>26</b> 160% of 140=  _____	<b>27</b> $\begin{array}{r} 1.013 \\ \times 0.13 \\ \hline \end{array}$	<b>28</b> $\begin{array}{r} 1.04 \\ \times 0.4 \\ \hline \end{array}$
<b>29</b> 130% of 130=  _____	<b>30</b> Convert to decimal $\frac{1}{8} =$  _____	<b>31</b> Write the answer in lowest terms $\frac{1}{7} \div \frac{4}{7} =$  _____	<b>32</b> $0.4 \overline{)0.24}$
<b>33</b> Write the answer in lowest terms $\begin{array}{r} 3\frac{2}{7} \\ + 3\frac{2}{7} \\ \hline \end{array}$	<b>34</b> $5.3 \overline{)2.12}$	<b>35</b> Write the answer in lowest terms $\begin{array}{r} 6\frac{5}{8} \\ - 5\frac{3}{16} \\ \hline \end{array}$	<b>36</b> Solve for x $\frac{x}{4} = 8$  x = _____
<b>37</b> Write the answer in lowest terms $3\frac{1}{2} \cdot 3\frac{1}{2} =$  _____	<b>38</b> Write the answer in lowest terms $\frac{4}{5} \div \frac{3}{8} =$  _____	<b>39</b> Write the answer in lowest terms $\begin{array}{r} 3\frac{3}{4} \\ + 2\frac{5}{8} \\ \hline \end{array}$	<b>40</b> Write the answer in lowest terms $\begin{array}{r} 4\frac{5}{8} \\ - 3\frac{2}{8} \\ \hline \end{array}$

Student:

Teacher:

Date:

*Reminder:* There is **no** partial credit when scoring. The answer must be correct **in its entirety** to obtain the correct score value. Note that the answer key provides the correct answers for each problem, but is not exhaustive.

**NOTE:** Unless a mixed number is specifically requested, a reduced improper fraction may be considered the simplest form and scored as correct. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 8, Probe 33 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	16	1	0	21.	34	3	0
2.	33	1	0	22.	$1\frac{1}{11}$	2	0
3.	-44	1	0	23.	4	2	0
4.	512	1	0	24.	11	3	0
5.	46	1	0	25.	1728	3	0
6.	44	1	0	26.	224	3	0
7.	-43	2	0	27.	0.13169	3	0
8.	20	1	0	28.	0.416	2	0
9.	27	1	0	29.	169	3	0
10.	47	1	0	30.	0.125	3	0
11.	$\frac{23}{100}$	1	0	31.	$\frac{1}{4}$	3	0
12.	-23	1	0	32.	0.6	3	0
13.	0.7	1	0	33.	$6\frac{4}{7}$	2	0
14.	$\frac{41}{100}$	1	0	34.	0.4	3	0
15.	$7\frac{2}{3}$	2	0	35.	$1\frac{7}{16}$	3	0
16.	169	2	0	36.	32	2	0
17.	15	2	0	37.	$12\frac{1}{4}$	3	0
18.	8	1	0	38.	$2\frac{2}{15}$	3	0
19.	$5\frac{3}{5}$	2	0	39.	$6\frac{3}{8}$	3	0
20.	$\frac{4}{15}$	2	0	40.	$1\frac{3}{8}$	2	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2