

Student:

Teacher:

Date:

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

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

Student:

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

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

Student:

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

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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

Student:

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

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

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

Student:

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

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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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

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:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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:

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

Student:

Teacher:

Date:

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

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