

Student:

Teacher:

Date:

<b>1</b> $17 + 19 =$  <hr/>	<b>2</b> $16 - 12 =$  <hr/>	<b>3</b> $\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 756 \\ + 73 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 51 \\ \times 3 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 441 \\ + 56 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 668 \\ - 293 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 314 \\ + 235 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 21 \\ \times 6 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 263 \\ - 62 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 632 \\ - 330 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$
<b>17</b> $2 \overline{)10}$	<b>18</b> $\begin{array}{r} 8.4 \\ + 7.6 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 53 \\ \times 2 \\ \hline \end{array}$	<b>20</b> $\frac{4}{8} + \frac{3}{8} =$  <hr/>

Student:

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**21**

$$\begin{array}{r} 7.0 \\ + 2.2 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$$

**23**

$$8 \overline{)72}$$

**24**

$$5 \overline{)35}$$

**25**

$$\frac{4}{7} - \frac{2}{7} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 57 \\ \times 5 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 9.9 \\ - 1.4 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 3654 \\ - 3512 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 555 \\ + 523 \\ \hline \end{array}$$

**30**

$$21 \overline{)567}$$

**31**

$$\begin{array}{r} 5556 \\ + 2337 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 3.5 \\ - 1.6 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5585 \\ - 2291 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 556 \\ - 86 \\ \hline \end{array}$$

**35**

$$\frac{5}{10} + \frac{4}{10} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 3401 \\ + 3066 \\ \hline \end{array}$$

**37**

$$\frac{3}{6} - \frac{2}{6} =$$

\_\_\_\_\_

**38**

$$4 \overline{)102}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 4 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	36	1	0	20.	$\frac{7}{8}$	3	0
2.	4	2	0	21.	9.2	2	0
3.	9	1	0	22.	21	1	0
4.	829	2	0	23.	9	2	0
5.	35	1	0	24.	7	2	0
6.	153	1	0	25.	$\frac{2}{7}$	3	0
7.	497	2	0	26.	285	2	0
8.	64	1	0	27.	8.5	3	0
9.	375	2	0	28.	142	1	0
10.	18	2	0	29.	1078	2	0
11.	549	1	0	30.	27	3	0
12.	126	2	0	31.	7893	2	0
13.	201	1	0	32.	1.9	3	0
14.	18	1	0	33.	3294	3	0
15.	302	1	0	34.	470	2	0
16.	24	1	0	35.	$\frac{9}{10}$	3	0
17.	5	2	0	36.	6467	2	0
18.	16	3	0	37.	$\frac{1}{6}$	3	0
19.	106	1	0	38.	25 r2; 25.5; $25\frac{2}{4}$ ; $25\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $19 + 15 =$  <hr/>	<b>2</b> $18 - 13 =$  <hr/>	<b>3</b> $\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 567 \\ + 81 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 23 \\ \times 2 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 326 \\ + 52 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 585 \\ - 239 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 324 \\ + 133 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 11 \\ \times 4 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 365 \\ - 45 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 365 \\ - 162 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$
<b>17</b> $2 \overline{)48}$	<b>18</b> $\begin{array}{r} 8.9 \\ + 8.7 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 20 \\ \times 6 \\ \hline \end{array}$	<b>20</b> $\frac{3}{5} + \frac{1}{5} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 7.0 \\ + 3.7 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$$

**23**

$$7 \overline{)21}$$

**24**

$$3 \overline{)36}$$

**25**

$$\frac{5}{7} - \frac{4}{7} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 85 \\ \times 5 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 9.2 \\ - 6.2 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 4653 \\ - 3422 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 565 \\ + 481 \\ \hline \end{array}$$

**30**

$$23 \overline{)575}$$

**31**

$$\begin{array}{r} 5765 \\ + 4128 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 6.0 \\ - 3.7 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5756 \\ - 1665 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 585 \\ - 79 \\ \hline \end{array}$$

**35**

$$\frac{5}{8} + \frac{2}{8} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 4414 \\ + 3362 \\ \hline \end{array}$$

**37**

$$\frac{5}{9} - \frac{3}{9} =$$

\_\_\_\_\_

**38**

$$4 \overline{)126}$$

Student:

Teacher:

Date:

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### Grade 4, Probe 5 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	34	1	0	20.	$\frac{4}{5}$	3	0
2.	5	2	0	21.	10.7	2	0
3.	21	1	0	22.	40	1	0
4.	648	2	0	23.	3	2	0
5.	30	1	0	24.	12	2	0
6.	46	1	0	25.	$\frac{1}{7}$	3	0
7.	378	2	0	26.	425	2	0
8.	9	1	0	27.	3	3	0
9.	346	2	0	28.	1231	1	0
10.	32	2	0	29.	1046	2	0
11.	457	1	0	30.	25	3	0
12.	44	2	0	31.	9893	2	0
13.	320	1	0	32.	2.3	3	0
14.	14	1	0	33.	4091	3	0
15.	203	1	0	34.	506	2	0
16.	16	1	0	35.	$\frac{7}{8}$	3	0
17.	24	2	0	36.	7776	2	0
18.	17.6	3	0	37.	$\frac{2}{9}$	3	0
19.	120	1	0	38.	31 r2; 31.5; $31\frac{2}{4}$ ; $31\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $15 + 19 =$  <hr/>	<b>2</b> $15 - 14 =$  <hr/>	<b>3</b> $\begin{array}{r} 1 \\ \times 2 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 558 \\ + 61 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 13 \\ \times 2 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 313 \\ + 65 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 866 \\ - 549 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 310 \\ + 222 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 21 \\ \times 3 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 164 \\ - 44 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 226 \\ - 111 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$
<b>17</b> $2 \overline{)28}$	<b>18</b> $\begin{array}{r} 6.7 \\ + 3.9 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 22 \\ \times 4 \\ \hline \end{array}$	<b>20</b> $\frac{1}{5} + \frac{1}{5} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 7.5 \\ + 4.0 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

**23**

$$3 \overline{)30}$$

**24**

$$6 \overline{)30}$$

**25**

$$\frac{4}{9} - \frac{2}{9} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 56 \\ \times 6 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 9.5 \\ - 3.0 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 5522 \\ - 4411 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 556 \\ + 438 \\ \hline \end{array}$$

**30**

$$31 \overline{)558}$$

**31**

$$\begin{array}{r} 5575 \\ + 2231 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 7.7 \\ - 2.8 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5695 \\ - 5118 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 668 \\ - 82 \\ \hline \end{array}$$

**35**

$$\frac{4}{8} + \frac{1}{8} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 3602 \\ + 3165 \\ \hline \end{array}$$

**37**

$$\frac{4}{10} - \frac{3}{10} =$$

\_\_\_\_\_

**38**

$$5 \overline{)164}$$



Student:

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### Grade 4, Probe 6 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	34	1	0	20.	$\frac{2}{5}$	3	0
2.	1	2	0	21.	11.5	2	0
3.	2	1	0	22.	49	1	0
4.	619	2	0	23.	10	2	0
5.	28	1	0	24.	5	2	0
6.	26	1	0	25.	$\frac{2}{9}$	3	0
7.	378	2	0	26.	336	2	0
8.	15	1	0	27.	6.5	3	0
9.	317	2	0	28.	1111	1	0
10.	48	2	0	29.	994	2	0
11.	532	1	0	30.	18	3	0
12.	63	2	0	31.	7806	2	0
13.	120	1	0	32.	4.9	3	0
14.	12	1	0	33.	577	3	0
15.	115	1	0	34.	586	2	0
16.	54	1	0	35.	$\frac{5}{8}$	3	0
17.	14	2	0	36.	6767	2	0
18.	10.6	3	0	37.	$\frac{1}{10}$	3	0
19.	88	1	0	38.	32 r4; 32.8; $32\frac{4}{5}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $18 + 15 =$  <hr/>	<b>2</b> $13 - 11 =$  <hr/>	<b>3</b> $\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 656 \\ + 82 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 32 \\ \times 3 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 506 \\ + 61 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 566 \\ - 358 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 430 \\ + 250 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 40 \\ \times 6 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 254 \\ - 52 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 656 \\ - 622 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$
<b>17</b> $5 \overline{)55}$	<b>18</b> $\begin{array}{r} 8.2 \\ + 7.8 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 61 \\ \times 4 \\ \hline \end{array}$	<b>20</b> $\frac{4}{10} + \frac{3}{10} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 3.5 \\ + 3.3 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

**23**

$$9 \overline{)18}$$

**24**

$$5 \overline{)65}$$

**25**

$$\frac{5}{7} - \frac{2}{7} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 66 \\ \times 8 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 7.1 \\ - 4.0 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 4465 \\ - 3451 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 557 \\ + 525 \\ \hline \end{array}$$

**30**

$$35 \overline{)595}$$

**31**

$$\begin{array}{r} 5766 \\ + 1126 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 9.3 \\ - 5.9 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5575 \\ - 3226 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 856 \\ - 64 \\ \hline \end{array}$$

**35**

$$\frac{3}{8} + \frac{4}{8} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2120 \\ + 2646 \\ \hline \end{array}$$

**37**

$$\frac{4}{6} - \frac{3}{6} =$$

\_\_\_\_\_

**38**

$$6 \overline{)105}$$

Student:

Teacher:

Date:

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### Grade 4, Probe 7 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	33	1	0	20.	$\frac{7}{10}$	3	0
2.	2	2	0	21.	6.8	2	0
3.	36	1	0	22.	35	1	0
4.	738	2	0	23.	2	2	0
5.	9	1	0	24.	13	2	0
6.	96	1	0	25.	$\frac{3}{7}$	3	0
7.	567	2	0	26.	528	2	0
8.	20	1	0	27.	3.1	3	0
9.	208	2	0	28.	1014	1	0
10.	24	2	0	29.	1082	2	0
11.	680	1	0	30.	17	3	0
12.	240	2	0	31.	6892	2	0
13.	202	1	0	32.	3.4	3	0
14.	14	1	0	33.	2349	3	0
15.	34	1	0	34.	792	2	0
16.	72	1	0	35.	$\frac{7}{8}$	3	0
17.	11	2	0	36.	4766	2	0
18.	16	3	0	37.	$\frac{1}{6}$	3	0
19.	244	1	0	38.	17 r3; 17.5; $17\frac{3}{6}$ ; $17\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $19 + 17 =$  <hr/>	<b>2</b> $18 - 10 =$  <hr/>	<b>3</b> $\begin{array}{r} 7 \\ \times 1 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 756 \\ + 63 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 63 \\ \times 3 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 310 \\ + 62 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 659 \\ - 463 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 345 \\ + 223 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 50 \\ \times 6 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 363 \\ - 41 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 265 \\ - 143 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$
<b>17</b> $2 \overline{)30}$	<b>18</b> $\begin{array}{r} 8.9 \\ + 5.9 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 54 \\ \times 2 \\ \hline \end{array}$	<b>20</b> $\frac{6}{9} + \frac{2}{9} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 6.3 \\ + 2.6 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$$

**23**

$$7 \overline{)84}$$

**24**

$$5 \overline{)50}$$

**25**

$$\frac{3}{4} - \frac{2}{4} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 75 \\ \times 5 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 9.6 \\ - 5.3 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 2656 \\ - 2535 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 557 \\ + 339 \\ \hline \end{array}$$

**30**

$$43 \overline{)559}$$

**31**

$$\begin{array}{r} 5345 \\ + 1425 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 7.5 \\ - 6.6 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5685 \\ - 5639 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 555 \\ - 73 \\ \hline \end{array}$$

**35**

$$\frac{2}{8} + \frac{1}{8} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2402 \\ + 1210 \\ \hline \end{array}$$

**37**

$$\frac{2}{7} - \frac{1}{7} =$$

\_\_\_\_\_

**38**

$$4 \overline{)122}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 8 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	36	1	0	20.	$\frac{8}{9}$	3	0
2.	8	2	0	21.	8.9	2	0
3.	7	1	0	22.	21	1	0
4.	819	2	0	23.	12	2	0
5.	12	1	0	24.	10	2	0
6.	189	1	0	25.	$\frac{1}{4}$	3	0
7.	372	2	0	26.	375	2	0
8.	45	1	0	27.	4.3	3	0
9.	196	2	0	28.	121	1	0
10.	24	2	0	29.	896	2	0
11.	568	1	0	30.	13	3	0
12.	300	2	0	31.	6770	2	0
13.	322	1	0	32.	0.9	3	0
14.	20	1	0	33.	46	3	0
15.	122	1	0	34.	482	2	0
16.	16	1	0	35.	$\frac{3}{8}$	3	0
17.	15	2	0	36.	3612	2	0
18.	14.8	3	0	37.	$\frac{1}{7}$	3	0
19.	108	1	0	38.	30 r2; 30.5; $30\frac{2}{4}$ ; $30\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $15 + 17 =$  <hr/>	<b>2</b> $18 - 13 =$  <hr/>	<b>3</b> $\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 765 \\ + 51 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 1 \\ \times 8 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 52 \\ \times 4 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 340 \\ + 55 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 696 \\ - 249 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 222 \\ + 231 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 32 \\ \times 2 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 335 \\ - 24 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 326 \\ - 125 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$
<b>17</b> $2 \overline{)38}$	<b>18</b> $\begin{array}{r} 8.9 \\ + 3.2 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 42 \\ \times 3 \\ \hline \end{array}$	<b>20</b> $\frac{3}{7} + \frac{3}{7} =$  <hr/>



Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 7.6 \\ + 7.2 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

**23**

$$6 \overline{)66}$$

**24**

$$2 \overline{)56}$$

**25**

$$\frac{4}{10} - \frac{3}{10} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 85 \\ \times 6 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 9.6 \\ - 7.4 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 2655 \\ - 1643 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 555 \\ + 437 \\ \hline \end{array}$$

**30**

$$36 \overline{)756}$$

**31**

$$\begin{array}{r} 5575 \\ + 3215 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 5.0 \\ - 3.7 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5675 \\ - 3393 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 586 \\ - 29 \\ \hline \end{array}$$

**35**

$$\frac{1}{9} + \frac{1}{9} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 3506 \\ + 3120 \\ \hline \end{array}$$

**37**

$$\frac{5}{8} - \frac{2}{8} =$$

\_\_\_\_\_

**38**

$$5 \overline{)143}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 9 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	32	1	0	20.	$\frac{6}{7}$	3	0
2.	5	2	0	21.	14.8	2	0
3.	54	1	0	22.	36	1	0
4.	816	2	0	23.	11	2	0
5.	8	1	0	24.	28	2	0
6.	208	1	0	25.	$\frac{1}{10}$	3	0
7.	395	2	0	26.	510	2	0
8.	20	1	0	27.	2.2	3	0
9.	447	2	0	28.	1012	1	0
10.	42	2	0	29.	992	2	0
11.	453	1	0	30.	21	3	0
12.	64	2	0	31.	8790	2	0
13.	311	1	0	32.	1.3	3	0
14.	27	1	0	33.	2282	3	0
15.	201	1	0	34.	557	2	0
16.	40	1	0	35.	$\frac{2}{9}$	3	0
17.	19	2	0	36.	6626	2	0
18.	12.1	3	0	37.	$\frac{3}{8}$	3	0
19.	126	1	0	38.	28 r3; 28.6; $28\frac{3}{5}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $19 + 12 =$  <hr/>	<b>2</b> $17 - 15 =$  <hr/>	<b>3</b> $\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 675 \\ + 52 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 21 \\ \times 4 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 430 \\ + 50 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 667 \\ - 482 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 352 \\ + 232 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 34 \\ \times 2 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 166 \\ - 62 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 334 \\ - 300 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$
<b>17</b> $5 \overline{)10}$	<b>18</b> $\begin{array}{r} 7.7 \\ + 6.4 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 32 \\ \times 3 \\ \hline \end{array}$	<b>20</b> $\frac{7}{10} + \frac{2}{10} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 3.5 \\ + 2.3 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

**23**

$$4 \overline{)48}$$

**24**

$$6 \overline{)42}$$

**25**

$$\frac{7}{8} - \frac{2}{8} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 76 \\ \times 6 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 5.8 \\ - 4.4 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 2266 \\ - 1254 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 563 \\ + 445 \\ \hline \end{array}$$

**30**

$$54 \overline{)756}$$

**31**

$$\begin{array}{r} 5675 \\ + 4215 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 2.1 \\ - 1.7 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5667 \\ - 5592 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 568 \\ - 19 \\ \hline \end{array}$$

**35**

$$\frac{4}{6} + \frac{1}{6} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 4402 \\ + 3353 \\ \hline \end{array}$$

**37**

$$\frac{7}{9} - \frac{6}{9} =$$

\_\_\_\_\_

**38**

$$4 \overline{)107}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 10 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	31	1	0	20.	$\frac{9}{10}$	3	0
2.	2	2	0	21.	5.8	2	0
3.	40	1	0	22.	18	1	0
4.	727	2	0	23.	12	2	0
5.	36	1	0	24.	7	2	0
6.	84	1	0	25.	$\frac{5}{8}$	3	0
7.	480	2	0	26.	456	2	0
8.	63	1	0	27.	1.4	3	0
9.	185	2	0	28.	1012	1	0
10.	10	2	0	29.	1008	2	0
11.	584	1	0	30.	14	3	0
12.	68	2	0	31.	9890	2	0
13.	104	1	0	32.	0.4	3	0
14.	32	1	0	33.	75	3	0
15.	34	1	0	34.	549	2	0
16.	12	1	0	35.	$\frac{5}{6}$	3	0
17.	2	2	0	36.	7755	2	0
18.	14.1	3	0	37.	$\frac{1}{9}$	3	0
19.	96	1	0	38.	26 r3; 26.75; $26\frac{3}{4}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $13 + 18 =$  <hr/>	<b>2</b> $16 - 11 =$  <hr/>	<b>3</b> $\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 676 \\ + 52 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 20 \\ \times 4 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 433 \\ + 61 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 855 \\ - 328 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 330 \\ + 226 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 30 \\ \times 6 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 253 \\ - 42 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 323 \\ - 211 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$
<b>17</b> $3 \overline{)36}$	<b>18</b> $\begin{array}{r} 7.7 \\ + 4.6 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 10 \\ \times 3 \\ \hline \end{array}$	<b>20</b> $\frac{3}{8} + \frac{2}{8} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 4.3 \\ + 3.6 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

**23**

$$5 \overline{)50}$$

**24**

$$3 \overline{)54}$$

**25**

$$\frac{7}{10} - \frac{6}{10} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 65 \\ \times 7 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 6.5 \\ - 1.1 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 2435 \\ - 1425 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 576 \\ + 343 \\ \hline \end{array}$$

**30**

$$35 \overline{)595}$$

**31**

$$\begin{array}{r} 5567 \\ + 2415 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 3.1 \\ - 1.7 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5565 \\ - 4339 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 558 \\ - 95 \\ \hline \end{array}$$

**35**

$$\frac{4}{9} + \frac{4}{9} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2523 \\ + 1442 \\ \hline \end{array}$$

**37**

$$\frac{3}{6} - \frac{2}{6} =$$

\_\_\_\_\_

**38**

$$2 \overline{)145}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 11 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	31	1	0	20.	$\frac{5}{8}$	3	0
2.	5	2	0	21.	7.9	2	0
3.	12	1	0	22.	49	1	0
4.	728	2	0	23.	10	2	0
5.	42	1	0	24.	18	2	0
6.	80	1	0	25.	$\frac{1}{10}$	3	0
7.	494	2	0	26.	455	2	0
8.	40	1	0	27.	5.4	3	0
9.	527	2	0	28.	1010	1	0
10.	18	2	0	29.	919	2	0
11.	556	1	0	30.	17	3	0
12.	180	2	0	31.	7982	2	0
13.	211	1	0	32.	1.4	3	0
14.	32	1	0	33.	1226	3	0
15.	112	1	0	34.	463	2	0
16.	36	1	0	35.	$\frac{8}{9}$	3	0
17.	12	2	0	36.	3965	2	0
18.	12.3	3	0	37.	$\frac{1}{6}$	3	0
19.	30	1	0	38.	72 r1; 72.5; $72\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2



Student:

Teacher:

Date:

<b>1</b> $19 + 14 =$  <hr/>	<b>2</b> $12 - 10 =$  <hr/>	<b>3</b> $\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 756 \\ + 62 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 63 \\ \times 3 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 225 \\ + 51 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 856 \\ - 265 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 332 \\ + 116 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 52 \\ \times 4 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 353 \\ - 42 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 266 \\ - 150 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$
<b>17</b> $5 \overline{)60}$	<b>18</b> $\begin{array}{r} 8.8 \\ + 6.4 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 40 \\ \times 4 \\ \hline \end{array}$	<b>20</b> $\frac{3}{6} + \frac{2}{6} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 7.8 \\ + 3.1 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$$

**23**

$$7 \overline{)35}$$

**24**

$$2 \overline{)64}$$

**25**

$$\frac{6}{8} - \frac{5}{8} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 59 \\ \times 5 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 5.9 \\ - 3.3 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 5466 \\ - 4456 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 568 \\ + 451 \\ \hline \end{array}$$

**30**

$$62 \overline{)558}$$

**31**

$$\begin{array}{r} 5675 \\ + 4241 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 6.5 \\ - 2.7 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5575 \\ - 5382 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 585 \\ - 59 \\ \hline \end{array}$$

**35**

$$\frac{4}{7} + \frac{1}{7} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 5145 \\ + 3523 \\ \hline \end{array}$$

**37**

$$\frac{8}{9} - \frac{1}{9} =$$

\_\_\_\_\_

**38**

$$5 \overline{)148}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 12 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	33	1	0	20.	$\frac{5}{6}$	3	0
2.	2	2	0	21.	10.9	2	0
3.	45	1	0	22.	24	1	0
4.	818	2	0	23.	5	2	0
5.	14	1	0	24.	32	2	0
6.	189	1	0	25.	$\frac{1}{8}$	3	0
7.	276	2	0	26.	295	2	0
8.	48	1	0	27.	2.6	3	0
9.	591	2	0	28.	1010	1	0
10.	12	2	0	29.	1019	2	0
11.	448	1	0	30.	9	3	0
12.	208	2	0	31.	9916	2	0
13.	311	1	0	32.	3.8	3	0
14.	18	1	0	33.	193	3	0
15.	116	1	0	34.	526	2	0
16.	56	1	0	35.	$\frac{5}{7}$	3	0
17.	12	2	0	36.	8668	2	0
18.	15.2	3	0	37.	$\frac{7}{9}$	3	0
19.	160	1	0	38.	29 r3; 29.6; $29\frac{3}{5}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $13 + 17 =$  <hr/>	<b>2</b> $14 - 13 =$  <hr/>	<b>3</b> $\begin{array}{r} 7 \\ \times 1 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 665 \\ + 54 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 60 \\ \times 4 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 440 \\ + 56 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 755 \\ - 539 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 326 \\ + 162 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 40 \\ \times 6 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 245 \\ - 32 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 645 \\ - 303 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$
<b>17</b> $2 \overline{)44}$	<b>18</b> $\begin{array}{r} 8.3 \\ + 7.7 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 43 \\ \times 3 \\ \hline \end{array}$	<b>20</b> $\frac{4}{7} + \frac{2}{7} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 7.2 \\ + 5.2 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$$

**23**

$$3 \overline{)12}$$

**24**

$$2 \overline{)46}$$

**25**

$$\frac{7}{8} - \frac{2}{8} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 66 \\ \times 7 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 5.3 \\ - 2.1 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 4665 \\ - 3632 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 555 \\ + 328 \\ \hline \end{array}$$

**30**

$$24 \overline{)696}$$

**31**

$$\begin{array}{r} 5596 \\ + 2141 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 5.0 \\ - 2.2 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5676 \\ - 4281 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 558 \\ - 71 \\ \hline \end{array}$$

**35**

$$\frac{1}{6} + \frac{4}{6} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2354 \\ + 2425 \\ \hline \end{array}$$

**37**

$$\frac{6}{9} - \frac{5}{9} =$$

\_\_\_\_\_

**38**

$$5 \overline{)106}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 13 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	30	1	0	20.	$\frac{6}{7}$	3	0
2.	1	2	0	21.	12.4	2	0
3.	7	1	0	22.	40	1	0
4.	719	2	0	23.	4	2	0
5.	54	1	0	24.	23	2	0
6.	240	1	0	25.	$\frac{5}{8}$	3	0
7.	496	2	0	26.	462	2	0
8.	20	1	0	27.	3.2	3	0
9.	216	2	0	28.	1033	1	0
10.	24	2	0	29.	883	2	0
11.	488	1	0	30.	29	3	0
12.	240	2	0	31.	7737	2	0
13.	213	1	0	32.	2.8	3	0
14.	12	1	0	33.	1395	3	0
15.	342	1	0	34.	487	2	0
16.	36	1	0	35.	$\frac{5}{6}$	3	0
17.	22	2	0	36.	4779	2	0
18.	16	3	0	37.	$\frac{1}{9}$	3	0
19.	129	1	0	38.	21 r1; 21.2; $21\frac{1}{5}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $18 + 13 =$  <hr/>	<b>2</b> $12 - 11 =$  <hr/>	<b>3</b> $\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 557 \\ + 91 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 31 \\ \times 2 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 322 \\ + 66 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 766 \\ - 193 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 322 \\ + 234 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 22 \\ \times 3 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 256 \\ - 26 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 216 \\ - 115 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$
<b>17</b> $7 \overline{)56}$	<b>18</b> $\begin{array}{r} 7.7 \\ + 6.5 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 20 \\ \times 6 \\ \hline \end{array}$	<b>20</b> $\frac{6}{9} + \frac{1}{9} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 5.3 \\ + 4.2 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$$

**23**

$$3 \overline{)18}$$

**24**

$$6 \overline{)30}$$

**25**

$$\frac{4}{8} - \frac{1}{8} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 65 \\ \times 5 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 4.9 \\ - 2.6 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 4633 \\ - 4423 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 556 \\ + 492 \\ \hline \end{array}$$

**30**

$$64 \overline{)576}$$

**31**

$$\begin{array}{r} 5695 \\ + 2291 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 8.2 \\ - 5.6 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5866 \\ - 2693 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 966 \\ - 73 \\ \hline \end{array}$$

**35**

$$\frac{1}{7} + \frac{1}{7} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 5362 \\ + 3632 \\ \hline \end{array}$$

**37**

$$\frac{2}{4} - \frac{1}{4} =$$

\_\_\_\_\_

**38**

$$2 \overline{)115}$$



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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 14 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	31	1	0	20.	$\frac{7}{9}$	3	0
2.	1	2	0	21.	9.5	2	0
3.	35	1	0	22.	24	1	0
4.	648	2	0	23.	6	2	0
5.	24	1	0	24.	5	2	0
6.	62	1	0	25.	$\frac{3}{8}$	3	0
7.	388	2	0	26.	325	2	0
8.	8	1	0	27.	2.3	3	0
9.	573	2	0	28.	210	1	0
10.	72	2	0	29.	1048	2	0
11.	556	1	0	30.	9	3	0
12.	66	2	0	31.	7986	2	0
13.	230	1	0	32.	2.6	3	0
14.	9	1	0	33.	3173	3	0
15.	101	1	0	34.	893	2	0
16.	45	1	0	35.	$\frac{2}{7}$	3	0
17.	8	2	0	36.	8994	2	0
18.	14.2	3	0	37.	$\frac{1}{4}$	3	0
19.	120	1	0	38.	57 r1; 57.5; $57\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $16 + 18 =$  <hr/>	<b>2</b> $18 - 12 =$  <hr/>	<b>3</b> $\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 765 \\ + 81 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 42 \\ \times 4 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 546 \\ + 53 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 568 \\ - 219 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 440 \\ + 235 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 53 \\ \times 3 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 355 \\ - 25 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 665 \\ - 204 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$
<b>17</b> $6 \overline{)12}$	<b>18</b> $\begin{array}{r} 6.7 \\ + 3.5 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 61 \\ \times 5 \\ \hline \end{array}$	<b>20</b> $\frac{3}{7} + \frac{3}{7} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 7.1 \\ + 5.0 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

**23**

$$2 \overline{)42}$$

**24**

$$2 \overline{)22}$$

**25**

$$\frac{3}{8} - \frac{2}{8} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 68 \\ \times 6 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 8.6 \\ - 5.5 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 3564 \\ - 2342 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 567 \\ + 423 \\ \hline \end{array}$$

**30**

$$14 \overline{)756}$$

**31**

$$\begin{array}{r} 5756 \\ + 1136 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 5.3 \\ - 1.6 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5656 \\ - 2192 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 555 \\ - 63 \\ \hline \end{array}$$

**35**

$$\frac{3}{9} + \frac{2}{9} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 5150 \\ + 3525 \\ \hline \end{array}$$

**37**

$$\frac{7}{10} - \frac{4}{10} =$$

\_\_\_\_\_

**38**

$$2 \overline{)105}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 15 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	34	1	0	20.	$\frac{6}{7}$	3	0
2.	6	2	0	21.	12.1	2	0
3.	56	1	0	22.	24	1	0
4.	846	2	0	23.	21	2	0
5.	54	1	0	24.	11	2	0
6.	168	1	0	25.	$\frac{1}{8}$	3	0
7.	599	2	0	26.	408	2	0
8.	20	1	0	27.	3.1	3	0
9.	349	2	0	28.	1222	1	0
10.	9	2	0	29.	990	2	0
11.	675	1	0	30.	54	3	0
12.	159	2	0	31.	6892	2	0
13.	330	1	0	32.	3.7	3	0
14.	14	1	0	33.	3464	3	0
15.	461	1	0	34.	492	2	0
16.	30	1	0	35.	$\frac{5}{9}$	3	0
17.	2	2	0	36.	8675	2	0
18.	10.2	3	0	37.	$\frac{3}{10}$	3	0
19.	305	1	0	38.	52 r1; 52.5; $52\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $18 + 14 =$  <hr/>	<b>2</b> $15 - 11 =$  <hr/>	<b>3</b> $\begin{array}{r} 4 \\ \times 2 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 965 \\ + 63 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 50 \\ \times 2 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 322 \\ + 66 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 595 \\ - 538 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 7 \\ \times 8 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 451 \\ + 126 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 11 \\ \times 3 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 344 \\ - 23 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 255 \\ - 115 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$
<b>17</b> $9 \overline{)63}$	<b>18</b> $\begin{array}{r} 6.7 \\ + 5.9 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 41 \\ \times 2 \\ \hline \end{array}$	<b>20</b> $\frac{3}{7} + \frac{2}{7} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 9.4 \\ + 4.5 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$$

**23**

$$2 \overline{)40}$$

**24**

$$5 \overline{)35}$$

**25**

$$\frac{8}{10} - \frac{1}{10} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 55 \\ \times 7 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 5.6 \\ - 2.5 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 4365 \\ - 2155 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 566 \\ + 443 \\ \hline \end{array}$$

**30**

$$26 \overline{)676}$$

**31**

$$\begin{array}{r} 5659 \\ + 2132 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 4.0 \\ - 2.5 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5756 \\ - 2564 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 656 \\ - 74 \\ \hline \end{array}$$

**35**

$$\frac{3}{5} + \frac{1}{5} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 3261 \\ + 3010 \\ \hline \end{array}$$

**37**

$$\frac{7}{8} - \frac{4}{8} =$$

\_\_\_\_\_

**38**

$$4 \overline{)102}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 16 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	32	1	0	20.	$\frac{5}{7}$	3	0
2.	4	2	0	21.	13.9	2	0
3.	8	1	0	22.	54	1	0
4.	1028	2	0	23.	20	2	0
5.	15	1	0	24.	7	2	0
6.	100	1	0	25.	$\frac{7}{10}$	3	0
7.	388	2	0	26.	385	2	0
8.	9	1	0	27.	3.1	3	0
9.	57	2	0	28.	2210	1	0
10.	56	2	0	29.	1009	2	0
11.	577	1	0	30.	26	3	0
12.	33	2	0	31.	7791	2	0
13.	321	1	0	32.	1.5	3	0
14.	12	1	0	33.	3192	3	0
15.	140	1	0	34.	582	2	0
16.	49	1	0	35.	$\frac{4}{5}$	3	0
17.	7	2	0	36.	6271	2	0
18.	12.6	3	0	37.	$\frac{3}{8}$	3	0
19.	82	1	0	38.	25 r2; 25.5; $25\frac{2}{4}$ ; $25\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $15 + 15 =$  <hr/>	<b>2</b> $19 - 12 =$  <hr/>	<b>3</b> $\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 755 \\ + 60 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 4 \\ \times 7 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 44 \\ \times 2 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 121 \\ + 51 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 667 \\ - 559 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 516 \\ + 460 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 31 \\ \times 3 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 462 \\ - 51 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 8 \\ \times 1 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 546 \\ - 335 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$
<b>17</b> $5 \overline{)25}$	<b>18</b> $\begin{array}{r} 5.9 \\ + 3.3 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 10 \\ \times 7 \\ \hline \end{array}$	<b>20</b> $\frac{1}{6} + \frac{4}{6} =$  <hr/>



Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 1.3 \\ + 3.6 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

**23**

$$8 \overline{)32}$$

**24**

$$2 \overline{)12}$$

**25**

$$\frac{4}{5} - \frac{2}{5} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 95 \\ \times 9 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 3.4 \\ - 1.2 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 4653 \\ - 4242 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 576 \\ + 116 \\ \hline \end{array}$$

**30**

$$81 \overline{)567}$$

**31**

$$\begin{array}{r} 5756 \\ + 1236 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 6.2 \\ - 2.3 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5965 \\ - 4936 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 675 \\ - 57 \\ \hline \end{array}$$

**35**

$$\frac{5}{8} + \frac{2}{8} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 3306 \\ + 2153 \\ \hline \end{array}$$

**37**

$$\frac{8}{9} - \frac{1}{9} =$$

\_\_\_\_\_

**38**

$$5 \overline{)146}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 17 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	30	1	0	20.	$\frac{5}{6}$	3	0
2.	7	2	0	21.	4.9	2	0
3.	10	1	0	22.	16	1	0
4.	815	2	0	23.	4	2	0
5.	28	1	0	24.	6	2	0
6.	88	1	0	25.	$\frac{2}{5}$	3	0
7.	172	2	0	26.	855	2	0
8.	27	1	0	27.	2.2	3	0
9.	108	2	0	28.	411	1	0
10.	42	2	0	29.	692	2	0
11.	976	1	0	30.	7	3	0
12.	93	2	0	31.	6992	2	0
13.	411	1	0	32.	3.9	3	0
14.	8	1	0	33.	1029	3	0
15.	211	1	0	34.	618	2	0
16.	30	1	0	35.	$\frac{7}{8}$	3	0
17.	5	2	0	36.	5459	2	0
18.	9.2	3	0	37.	$\frac{7}{9}$	3	0
19.	70	1	0	38.	29 r1; 29.2; $29\frac{1}{5}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $18 + 19 =$  <hr/>	<b>2</b> $14 - 14 =$  <hr/>	<b>3</b> $\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 576 \\ + 72 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 24 \\ \times 2 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 344 \\ + 51 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 658 \\ - 382 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 7 \\ \times 1 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 360 \\ + 135 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 10 \\ \times 5 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 161 \\ - 51 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 246 \\ - 113 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$
<b>17</b> $5 \overline{)45}$	<b>18</b> $\begin{array}{r} 8.7 \\ + 7.8 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 31 \\ \times 6 \\ \hline \end{array}$	<b>20</b> $\frac{4}{10} + \frac{1}{10} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 7.9 \\ + 8.0 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$$

**23**

$$8 \overline{)40}$$

**24**

$$3 \overline{)45}$$

**25**

$$\frac{5}{6} - \frac{4}{6} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 65 \\ \times 8 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 6.3 \\ - 5.1 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 5362 \\ - 4152 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 656 \\ + 391 \\ \hline \end{array}$$

**30**

$$12 \overline{)756}$$

**31**

$$\begin{array}{r} 5755 \\ + 3139 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 9.2 \\ - 4.8 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5655 \\ - 5627 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 656 \\ - 63 \\ \hline \end{array}$$

**35**

$$\frac{3}{7} + \frac{2}{7} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 4342 \\ + 3332 \\ \hline \end{array}$$

**37**

$$\frac{4}{8} - \frac{1}{8} =$$

\_\_\_\_\_

**38**

$$5 \overline{)156}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 18 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	37	1	0	20.	$\frac{5}{10}, \frac{1}{2}$	3	0
2.	0	2	0	21.	15.9	2	0
3.	72	1	0	22.	8	1	0
4.	648	2	0	23.	5	2	0
5.	30	1	0	24.	15	2	0
6.	48	1	0	25.	$\frac{1}{6}$	3	0
7.	395	2	0	26.	520	2	0
8.	16	1	0	27.	1.2	3	0
9.	276	2	0	28.	1210	1	0
10.	7	2	0	29.	1047	2	0
11.	495	1	0	30.	63	3	0
12.	50	2	0	31.	8894	2	0
13.	110	1	0	32.	4.4	3	0
14.	27	1	0	33.	28	3	0
15.	133	1	0	34.	593	2	0
16.	40	1	0	35.	$\frac{5}{7}$	3	0
17.	9	2	0	36.	7674	2	0
18.	16.5	3	0	37.	$\frac{3}{8}$	3	0
19.	186	1	0	38.	31 r1; 31.2; $31\frac{1}{5}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $13 + 19 =$  <hr/>	<b>2</b> $17 - 11 =$  <hr/>	<b>3</b> $\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 656 \\ + 61 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 51 \\ \times 3 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 236 \\ + 60 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 595 \\ - 548 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 355 \\ + 134 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 40 \\ \times 2 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 242 \\ - 21 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 236 \\ - 123 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$
<b>17</b> $7 \overline{)28}$	<b>18</b> $\begin{array}{r} 8.9 \\ + 6.3 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 21 \\ \times 6 \\ \hline \end{array}$	<b>20</b> $\frac{2}{6} + \frac{3}{6} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 7.6 \\ + 7.3 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 9 \\ \times 5 \\ \hline \end{array}$$

**23**

$$2 \overline{)22}$$

**24**

$$3 \overline{)36}$$

**25**

$$\frac{6}{7} - \frac{5}{7} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 56 \\ \times 7 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 5.6 \\ - 3.4 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 5636 \\ - 5536 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 565 \\ + 442 \\ \hline \end{array}$$

**30**

$$15 \overline{)585}$$

**31**

$$\begin{array}{r} 5667 \\ + 2124 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 5.6 \\ - 4.9 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5675 \\ - 4181 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 756 \\ - 37 \\ \hline \end{array}$$

**35**

$$\frac{3}{9} + \frac{1}{9} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2516 \\ + 1432 \\ \hline \end{array}$$

**37**

$$\frac{6}{10} - \frac{3}{10} =$$

\_\_\_\_\_

**38**

$$4 \overline{)122}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 19 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	32	1	0	20.	$\frac{5}{6}$	3	0
2.	6	2	0	21.	14.9	2	0
3.	42	1	0	22.	45	1	0
4.	717	2	0	23.	11	2	0
5.	9	1	0	24.	12	2	0
6.	153	1	0	25.	$\frac{1}{7}$	3	0
7.	296	2	0	26.	392	2	0
8.	10	1	0	27.	2.2	3	0
9.	47	2	0	28.	100	1	0
10.	16	2	0	29.	1007	2	0
11.	489	1	0	30.	39	3	0
12.	80	2	0	31.	7791	2	0
13.	221	1	0	32.	0.7	3	0
14.	21	1	0	33.	1494	3	0
15.	113	1	0	34.	719	2	0
16.	48	1	0	35.	$\frac{4}{9}$	3	0
17.	4	2	0	36.	3948	2	0
18.	15.2	3	0	37.	$\frac{3}{10}$	3	0
19.	126	1	0	38.	30 r2; 30.5; $30\frac{2}{4}$ ; $30\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2



Student:

Teacher:

Date:

<b>1</b> $19 + 16 =$  <hr/>	<b>2</b> $17 - 12 =$  <hr/>	<b>3</b> $\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 675 \\ + 53 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 9 \\ \times 7 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 61 \\ \times 3 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 335 \\ + 54 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 558 \\ - 539 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 225 \\ + 214 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 30 \\ \times 5 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 325 \\ - 25 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 266 \\ - 116 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$
<b>17</b> $5 \overline{)25}$	<b>18</b> $\begin{array}{r} 7.9 \\ + 3.3 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 12 \\ \times 3 \\ \hline \end{array}$	<b>20</b> $\frac{2}{9} + \frac{5}{9} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 8.4 \\ + 3.5 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 3 \\ \times 1 \\ \hline \end{array}$$

**23**

$$2 \overline{)32}$$

**24**

$$4 \overline{)24}$$

**25**

$$\frac{9}{10} - \frac{2}{10} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 55 \\ \times 6 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 6.7 \\ - 5.5 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 5666 \\ - 4564 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 555 \\ + 428 \\ \hline \end{array}$$

**30**

$$42 \overline{)756}$$

**31**

$$\begin{array}{r} 5668 \\ + 1229 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 6.1 \\ - 4.3 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5586 \\ - 2369 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 675 \\ - 85 \\ \hline \end{array}$$

**35**

$$\frac{4}{7} + \frac{1}{7} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2512 \\ + 1425 \\ \hline \end{array}$$

**37**

$$\frac{2}{4} - \frac{1}{4} =$$

\_\_\_\_\_

**38**

$$5 \overline{)103}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 20 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	35	1	0	20.	$\frac{7}{9}$	3	0
2.	5	2	0	21.	11.9	2	0
3.	24	1	0	22.	3	1	0
4.	728	2	0	23.	16	2	0
5.	63	1	0	24.	6	2	0
6.	183	1	0	25.	$\frac{7}{10}$	3	0
7.	389	2	0	26.	330	2	0
8.	24	1	0	27.	1.2	3	0
9.	19	2	0	28.	1102	1	0
10.	10	2	0	29.	983	2	0
11.	439	1	0	30.	18	3	0
12.	150	2	0	31.	6897	2	0
13.	300	1	0	32.	1.8	3	0
14.	42	1	0	33.	3217	3	0
15.	150	1	0	34.	590	2	0
16.	20	1	0	35.	$\frac{5}{7}$	3	0
17.	5	2	0	36.	3937	2	0
18.	11.2	3	0	37.	$\frac{1}{4}$	3	0
19.	36	1	0	38.	20 r3; 20.6; $20\frac{3}{5}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $14 + 19 =$  <hr/>	<b>2</b> $16 - 14 =$  <hr/>	<b>3</b> $\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 558 \\ + 91 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 14 \\ \times 2 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 314 \\ + 52 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 585 \\ - 338 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 226 \\ + 133 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 32 \\ \times 4 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 331 \\ - 30 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 345 \\ - 231 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$
<b>17</b> $2 \overline{)24}$	<b>18</b> $\begin{array}{r} 7.5 \\ + 6.8 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 61 \\ \times 6 \\ \hline \end{array}$	<b>20</b> $\frac{3}{8} + \frac{4}{8} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 3.1 \\ + 2.2 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$$

**23**

$$6 \overline{)48}$$

**24**

$$4 \overline{)56}$$

**25**

$$\frac{6}{9} - \frac{1}{9} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 69 \\ \times 5 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 9.8 \\ - 7.3 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 5655 \\ - 5334 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 565 \\ + 342 \\ \hline \end{array}$$

**30**

$$12 \overline{)576}$$

**31**

$$\begin{array}{r} 5676 \\ + 3263 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 6.1 \\ - 4.4 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5567 \\ - 5328 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 855 \\ - 95 \\ \hline \end{array}$$

**35**

$$\frac{5}{10} + \frac{4}{10} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2525 \\ + 1352 \\ \hline \end{array}$$

**37**

$$\frac{2}{5} - \frac{1}{5} =$$

\_\_\_\_\_

**38**

$$2 \overline{)135}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 21 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	33	1	0	20.	$\frac{7}{8}$	3	0
2.	2	2	0	21.	5.3	2	0
3.	48	1	0	22.	42	1	0
4.	649	2	0	23.	8	2	0
5.	14	1	0	24.	14	2	0
6.	28	1	0	25.	$\frac{5}{9}$	3	0
7.	366	2	0	26.	345	2	0
8.	27	1	0	27.	2.5	3	0
9.	247	2	0	28.	321	1	0
10.	20	2	0	29.	907	2	0
11.	359	1	0	30.	48	3	0
12.	128	2	0	31.	8939	2	0
13.	301	1	0	32.	1.7	3	0
14.	12	1	0	33.	239	3	0
15.	114	1	0	34.	760	2	0
16.	40	1	0	35.	$\frac{9}{10}$	3	0
17.	12	2	0	36.	3877	2	0
18.	14.3	3	0	37.	$\frac{1}{5}$	3	0
19.	366	1	0	38.	67 r1; 67.5; $67\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $17 + 16 =$  <hr/>	<b>2</b> $14 - 11 =$  <hr/>	<b>3</b> $\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 756 \\ + 63 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 31 \\ \times 5 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 320 \\ + 61 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 6 \\ \times 1 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 565 \\ - 271 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 326 \\ + 131 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 42 \\ \times 2 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 341 \\ - 40 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 665 \\ - 552 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$
<b>17</b> $2 \overline{)46}$	<b>18</b> $\begin{array}{r} 9.7 \\ + 7.5 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 23 \\ \times 3 \\ \hline \end{array}$	<b>20</b> $\frac{2}{4} + \frac{1}{4} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 6.2 \\ + 3.0 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

**23**

$$5 \overline{)40}$$

**24**

$$2 \overline{)42}$$

**25**

$$\frac{6}{8} - \frac{3}{8} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 67 \\ \times 6 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 7.8 \\ - 5.6 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 3655 \\ - 2652 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 559 \\ + 432 \\ \hline \end{array}$$

**30**

$$36 \overline{)576}$$

**31**

$$\begin{array}{r} 5596 \\ + 3142 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 8.6 \\ - 6.8 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5557 \\ - 3248 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 866 \\ - 93 \\ \hline \end{array}$$

**35**

$$\frac{3}{9} + \frac{1}{9} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 4151 \\ + 3240 \\ \hline \end{array}$$

**37**

$$\frac{9}{10} - \frac{6}{10} =$$

\_\_\_\_\_

**38**

$$6 \overline{)141}$$



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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 22 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	33	1	0	20.	$\frac{3}{4}$	3	0
2.	3	2	0	21.	9.2	2	0
3.	25	1	0	22.	36	1	0
4.	819	2	0	23.	8	2	0
5.	24	1	0	24.	21	2	0
6.	155	1	0	25.	$\frac{3}{8}$	3	0
7.	381	2	0	26.	402	2	0
8.	6	1	0	27.	2.2	3	0
9.	294	2	0	28.	1003	1	0
10.	20	2	0	29.	991	2	0
11.	457	1	0	30.	16	3	0
12.	84	2	0	31.	8738	2	0
13.	301	1	0	32.	1.8	3	0
14.	18	1	0	33.	2309	3	0
15.	113	1	0	34.	773	2	0
16.	42	1	0	35.	$\frac{4}{9}$	3	0
17.	23	2	0	36.	7391	2	0
18.	17.2	3	0	37.	$\frac{3}{10}$	3	0
19.	69	1	0	38.	23 r3; 23.5; $23\frac{3}{6}$ ; $23\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $16 + 15 =$  <hr/>	<b>2</b> $18 - 11 =$  <hr/>	<b>3</b> $\begin{array}{r} 2 \\ \times 6 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 568 \\ + 71 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 31 \\ \times 4 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 312 \\ + 64 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 1 \\ \times 7 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 557 \\ - 529 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 9 \\ \times 8 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 353 \\ + 235 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 33 \\ \times 3 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 364 \\ - 53 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 444 \\ - 203 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$
<b>17</b> $8 \overline{)64}$	<b>18</b> $\begin{array}{r} 5.4 \\ + 3.8 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 50 \\ \times 2 \\ \hline \end{array}$	<b>20</b> $\frac{6}{10} + \frac{1}{10} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 8.4 \\ + 3.1 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$$

**23**

$$4 \overline{)20}$$

**24**

$$5 \overline{)45}$$

**25**

$$\frac{6}{7} - \frac{1}{7} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 86 \\ \times 5 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 7.3 \\ - 7.1 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 4632 \\ - 2231 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 575 \\ + 443 \\ \hline \end{array}$$

**30**

$$51 \overline{)765}$$

**31**

$$\begin{array}{r} 5696 \\ + 4173 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 6.5 \\ - 2.8 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5655 \\ - 2446 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 668 \\ - 19 \\ \hline \end{array}$$

**35**

$$\frac{2}{8} + \frac{3}{8} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 4531 \\ + 3422 \\ \hline \end{array}$$

**37**

$$\frac{7}{9} - \frac{2}{9} =$$

\_\_\_\_\_

**38**

$$4 \overline{)135}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 23 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	31	1	0	20.	$\frac{7}{10}$	3	0
2.	7	2	0	21.	11.5	2	0
3.	12	1	0	22.	16	1	0
4.	639	2	0	23.	5	2	0
5.	27	1	0	24.	9	2	0
6.	124	1	0	25.	$\frac{5}{7}$	3	0
7.	376	2	0	26.	430	2	0
8.	7	1	0	27.	0.2	3	0
9.	28	2	0	28.	2401	1	0
10.	72	2	0	29.	1018	2	0
11.	588	1	0	30.	15	3	0
12.	99	2	0	31.	9869	2	0
13.	311	1	0	32.	3.7	3	0
14.	20	1	0	33.	3209	3	0
15.	241	1	0	34.	649	2	0
16.	21	1	0	35.	$\frac{5}{8}$	3	0
17.	8	2	0	36.	7953	2	0
18.	9.2	3	0	37.	$\frac{5}{9}$	3	0
19.	100	1	0	38.	33 r3; 33.75; $33\frac{3}{4}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $16 + 14 =$  <hr/>	<b>2</b> $11 - 10 =$  <hr/>	<b>3</b> $\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 755 \\ + 71 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 53 \\ \times 3 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 432 \\ + 55 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 3 \\ \times 7 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 567 \\ - 229 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 441 \\ + 141 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 60 \\ \times 5 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 243 \\ - 43 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 546 \\ - 303 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$
<b>17</b> $7 \overline{)42}$	<b>18</b> $\begin{array}{r} 9.8 \\ + 4.2 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 31 \\ \times 4 \\ \hline \end{array}$	<b>20</b> $\frac{5}{10} + \frac{2}{10} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 9.1 \\ + 3.4 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$

**23**

$$9 \overline{)90}$$

**24**

$$6 \overline{)66}$$

**25**

$$\frac{8}{9} - \frac{7}{9} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 59 \\ \times 6 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 9.8 \\ - 2.6 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 3564 \\ - 2124 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 657 \\ + 118 \\ \hline \end{array}$$

**30**

$$63 \overline{)756}$$

**31**

$$\begin{array}{r} 5669 \\ + 1221 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 9.1 \\ - 1.2 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5665 \\ - 3271 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 658 \\ - 75 \\ \hline \end{array}$$

**35**

$$\frac{2}{6} + \frac{1}{6} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2462 \\ + 1324 \\ \hline \end{array}$$

**37**

$$\frac{5}{7} - \frac{1}{7} =$$

\_\_\_\_\_

**38**

$$2 \overline{)135}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 24 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	30	1	0	20.	$\frac{7}{10}$	3	0
2.	1	2	0	21.	12.5	2	0
3.	40	1	0	22.	35	1	0
4.	826	2	0	23.	10	2	0
5.	24	1	0	24.	11	2	0
6.	159	1	0	25.	$\frac{1}{9}$	3	0
7.	487	2	0	26.	354	2	0
8.	21	1	0	27.	7.2	3	0
9.	338	2	0	28.	1440	1	0
10.	32	2	0	29.	775	2	0
11.	582	1	0	30.	12	3	0
12.	300	2	0	31.	6890	2	0
13.	200	1	0	32.	7.9	3	0
14.	36	1	0	33.	2394	3	0
15.	243	1	0	34.	583	2	0
16.	18	1	0	35.	$\frac{3}{6}; \frac{1}{2}$	3	0
17.	6	2	0	36.	3786	2	0
18.	14	3	0	37.	$\frac{4}{7}$	3	0
19.	124	1	0	38.	67 r1; 67.5; $67\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $18 + 12 =$  <hr/>	<b>2</b> $16 - 11 =$  <hr/>	<b>3</b> $\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 555 \\ + 71 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 3 \\ \times 1 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 61 \\ \times 2 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 330 \\ + 56 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 555 \\ - 527 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 331 \\ + 225 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 31 \\ \times 6 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 342 \\ - 32 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 364 \\ - 232 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$
<b>17</b> $4 \overline{)40}$	<b>18</b> $\begin{array}{r} 9.6 \\ + 2.9 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 30 \\ \times 5 \\ \hline \end{array}$	<b>20</b> $\frac{6}{10} + \frac{1}{10} =$  <hr/>



Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 8.1 \\ + 6.7 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$$

**23**

$$4 \overline{)44}$$

**24**

$$4 \overline{)52}$$

**25**

$$\frac{4}{7} - \frac{3}{7} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 56 \\ \times 9 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 7.7 \\ - 5.2 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 4326 \\ - 3312 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 556 \\ + 338 \\ \hline \end{array}$$

**30**

$$13 \overline{)585}$$

**31**

$$\begin{array}{r} 5595 \\ + 2234 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 6.6 \\ - 4.9 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5586 \\ - 4247 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 766 \\ - 37 \\ \hline \end{array}$$

**35**

$$\frac{4}{9} + \frac{4}{9} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2446 \\ + 1302 \\ \hline \end{array}$$

**37**

$$\frac{6}{10} - \frac{5}{10} =$$

\_\_\_\_\_

**38**

$$2 \overline{)145}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 25 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	30	1	0	20.	$\frac{7}{10}$	3	0
2.	5	2	0	21.	14.8	2	0
3.	16	1	0	22.	30	1	0
4.	626	2	0	23.	11	2	0
5.	3	1	0	24.	13	2	0
6.	122	1	0	25.	$\frac{1}{7}$	3	0
7.	386	2	0	26.	504	2	0
8.	21	1	0	27.	2.5	3	0
9.	28	2	0	28.	1014	1	0
10.	40	2	0	29.	894	2	0
11.	556	1	0	30.	45	3	0
12.	186	2	0	31.	7829	2	0
13.	310	1	0	32.	1.7	3	0
14.	18	1	0	33.	1339	3	0
15.	132	1	0	34.	729	2	0
16.	4	1	0	35.	$\frac{8}{9}$	3	0
17.	10	2	0	36.	3748	2	0
18.	12.5	3	0	37.	$\frac{1}{10}$	3	0
19.	150	1	0	38.	72 r1; 72.5; $72\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $19 + 13 =$  <hr/>	<b>2</b> $18 - 16 =$  <hr/>	<b>3</b> $\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 695 \\ + 73 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 30 \\ \times 3 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 421 \\ + 60 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 8 \\ \times 8 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 856 \\ - 492 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 365 \\ + 234 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 63 \\ \times 2 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 251 \\ - 40 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 462 \\ - 141 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$
<b>17</b> $3 \overline{)48}$	<b>18</b> $\begin{array}{r} 7.7 \\ + 3.8 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 50 \\ \times 5 \\ \hline \end{array}$	<b>20</b> $\frac{3}{6} + \frac{2}{6} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 6.4 \\ + 6.3 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$$

**23**

$$8 \overline{)64}$$

**24**

$$2 \overline{)34}$$

**25**

$$\frac{8}{10} - \frac{5}{10} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 65 \\ \times 6 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 9.7 \\ - 6.4 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 2655 \\ - 1645 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 568 \\ + 351 \\ \hline \end{array}$$

**30**

$$21 \overline{)756}$$

**31**

$$\begin{array}{r} 5559 \\ + 4331 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 8.1 \\ - 6.5 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5765 \\ - 1693 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 686 \\ - 17 \\ \hline \end{array}$$

**35**

$$\frac{7}{9} + \frac{1}{9} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2126 \\ + 2652 \\ \hline \end{array}$$

**37**

$$\frac{6}{7} - \frac{2}{7} =$$

\_\_\_\_\_

**38**

$$5 \overline{)136}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 26 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	32	1	0	20.	$\frac{5}{6}$	3	0
2.	2	2	0	21.	12.7	2	0
3.	6	1	0	22.	40	1	0
4.	768	2	0	23.	8	2	0
5.	18	1	0	24.	17	2	0
6.	90	1	0	25.	$\frac{3}{10}$	3	0
7.	481	2	0	26.	390	2	0
8.	64	1	0	27.	3.3	3	0
9.	364	2	0	28.	1010	1	0
10.	30	2	0	29.	919	2	0
11.	599	1	0	30.	36	3	0
12.	126	2	0	31.	9890	2	0
13.	211	1	0	32.	1.6	3	0
14.	36	1	0	33.	4072	3	0
15.	321	1	0	34.	669	2	0
16.	42	1	0	35.	$\frac{8}{9}$	3	0
17.	16	2	0	36.	4778	2	0
18.	11.5	3	0	37.	$\frac{4}{7}$	3	0
19.	250	1	0	38.	27 r1; 27.2; $27\frac{1}{5}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $19 + 15 =$  <hr/>	<b>2</b> $18 - 17 =$  <hr/>	<b>3</b> $\begin{array}{r} 9 \\ \times 9 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 765 \\ + 73 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 6 \\ \times 7 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 40 \\ \times 3 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 341 \\ + 50 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 657 \\ - 264 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 432 \\ + 134 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 32 \\ \times 2 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 362 \\ - 32 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 246 \\ - 125 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$
<b>17</b> $2 \overline{)26}$	<b>18</b> $\begin{array}{r} 9.6 \\ + 5.5 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 10 \\ \times 5 \\ \hline \end{array}$	<b>20</b> $\frac{6}{10} + \frac{3}{10} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 5.1 \\ + 2.4 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 8 \\ \times 6 \\ \hline \end{array}$$

**23**

$$5 \overline{)35}$$

**24**

$$6 \overline{)66}$$

**25**

$$\frac{8}{9} - \frac{6}{9} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 76 \\ \times 5 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 7.7 \\ - 3.2 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 3146 \\ - 2126 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 567 \\ + 342 \\ \hline \end{array}$$

**30**

$$16 \overline{)656}$$

**31**

$$\begin{array}{r} 5695 \\ + 2163 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 6.5 \\ - 4.8 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5596 \\ - 2329 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 596 \\ - 68 \\ \hline \end{array}$$

**35**

$$\frac{5}{7} + \frac{1}{7} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 5335 \\ + 3614 \\ \hline \end{array}$$

**37**

$$\frac{5}{8} - \frac{2}{8} =$$

\_\_\_\_\_

**38**

$$4 \overline{)122}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 27 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	34	1	0	20.	$\frac{9}{10}$	3	0
2.	1	2	0	21.	7.5	2	0
3.	81	1	0	22.	48	1	0
4.	838	2	0	23.	7	2	0
5.	42	1	0	24.	11	2	0
6.	120	1	0	25.	$\frac{2}{9}$	3	0
7.	391	2	0	26.	380	2	0
8.	8	1	0	27.	4.5	3	0
9.	393	2	0	28.	1020	1	0
10.	24	2	0	29.	909	2	0
11.	566	1	0	30.	41	3	0
12.	64	2	0	31.	7858	2	0
13.	330	1	0	32.	1.7	3	0
14.	24	1	0	33.	3267	3	0
15.	121	1	0	34.	528	2	0
16.	35	1	0	35.	$\frac{6}{7}$	3	0
17.	13	2	0	36.	8949	2	0
18.	15.1	3	0	37.	$\frac{3}{8}$	3	0
19.	50	1	0	38.	30 r2; 30.5; $30\frac{2}{4}$ ; $30\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**



Student:

Teacher:

Date:

<b>1</b> $13 + 18 =$  <hr/>	<b>2</b> $15 - 10 =$  <hr/>	<b>3</b> $\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 655 \\ + 54 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 5 \\ \times 1 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 60 \\ \times 4 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 342 \\ + 52 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 3 \\ \times 3 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 755 \\ - 418 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 335 \\ + 234 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 41 \\ \times 3 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 236 \\ - 16 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 265 \\ - 133 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$
<b>17</b> $3 \overline{)33}$	<b>18</b> $\begin{array}{r} 5.9 \\ + 5.7 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 11 \\ \times 6 \\ \hline \end{array}$	<b>20</b> $\frac{3}{8} + \frac{2}{8} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 9.1 \\ + 8.2 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$

**23**

$$7 \overline{)14}$$

**24**

$$3 \overline{)66}$$

**25**

$$\frac{5}{7} - \frac{3}{7} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 55 \\ \times 7 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 9.8 \\ - 2.5 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 1254 \\ - 1132 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 567 \\ + 513 \\ \hline \end{array}$$

**30**

$$37 \overline{)555}$$

**31**

$$\begin{array}{r} 5685 \\ + 1252 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 5.2 \\ - 2.4 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5766 \\ - 5139 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 657 \\ - 94 \\ \hline \end{array}$$

**35**

$$\frac{6}{10} + \frac{1}{10} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2445 \\ + 1301 \\ \hline \end{array}$$

**37**

$$\frac{7}{9} - \frac{5}{9} =$$

\_\_\_\_\_

**38**

$$6 \overline{)123}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 28 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	31	1	0	20.	$\frac{5}{8}$	3	0
2.	5	2	0	21.	17.3	2	0
3.	18	1	0	22.	35	1	0
4.	709	2	0	23.	2	2	0
5.	5	1	0	24.	22	2	0
6.	240	1	0	25.	$\frac{2}{7}$	3	0
7.	394	2	0	26.	385	2	0
8.	9	1	0	27.	7.3	3	0
9.	337	2	0	28.	122	1	0
10.	32	2	0	29.	1080	2	0
11.	569	1	0	30.	15	3	0
12.	123	2	0	31.	6937	2	0
13.	220	1	0	32.	2.8	3	0
14.	14	1	0	33.	627	3	0
15.	132	1	0	34.	563	2	0
16.	24	1	0	35.	$\frac{7}{10}$	3	0
17.	11	2	0	36.	3746	2	0
18.	11.6	3	0	37.	$\frac{2}{9}$	3	0
19.	66	1	0	38.	20 r3; 20.5; $20\frac{3}{6}$ ; $20\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $16 + 17 =$  <hr/>	<b>2</b> $17 - 16 =$  <hr/>	<b>3</b> $\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 765 \\ + 63 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 3 \\ \times 2 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 11 \\ \times 6 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 415 \\ + 50 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 8 \\ \times 9 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 569 \\ - 475 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 343 \\ + 133 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 42 \\ \times 4 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 166 \\ - 56 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 214 \\ - 114 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$
<b>17</b> $2 \overline{)50}$	<b>18</b> $\begin{array}{r} 8.4 \\ + 3.7 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 64 \\ \times 2 \\ \hline \end{array}$	<b>20</b> $\frac{2}{10} + \frac{1}{10} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 6.7 \\ + 3.2 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$$

**23**

$$8 \overline{)56}$$

**24**

$$2 \overline{)22}$$

**25**

$$\frac{5}{7} - \frac{2}{7} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 58 \\ \times 5 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 9.4 \\ - 9.1 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 3654 \\ - 3512 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 657 \\ + 119 \\ \hline \end{array}$$

**30**

$$52 \overline{)676}$$

**31**

$$\begin{array}{r} 5557 \\ + 3416 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 7.6 \\ - 5.8 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5568 \\ - 1449 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 576 \\ - 91 \\ \hline \end{array}$$

**35**

$$\frac{6}{8} + \frac{1}{8} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2426 \\ + 1243 \\ \hline \end{array}$$

**37**

$$\frac{2}{3} - \frac{1}{3} =$$

\_\_\_\_\_

**38**

$$5 \overline{)101}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 29 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	33	1	0	20.	$\frac{3}{10}$	3	0
2.	1	2	0	21.	9.9	2	0
3.	42	1	0	22.	24	1	0
4.	828	2	0	23.	7	2	0
5.	6	1	0	24.	11	2	0
6.	66	1	0	25.	$\frac{3}{7}$	3	0
7.	465	2	0	26.	290	2	0
8.	72	1	0	27.	0.3	3	0
9.	94	2	0	28.	142	1	0
10.	25	2	0	29.	776	2	0
11.	476	1	0	30.	13	3	0
12.	168	2	0	31.	8973	2	0
13.	110	1	0	32.	1.8	3	0
14.	16	1	0	33.	4119	3	0
15.	100	1	0	34.	485	2	0
16.	27	1	0	35.	$\frac{7}{8}$	3	0
17.	25	2	0	36.	3669	2	0
18.	12.1	3	0	37.	$\frac{1}{3}$	3	0
19.	128	1	0	38.	20 r1; 20.2; $20\frac{1}{5}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $19 + 18 =$  <hr/>	<b>2</b> $16 - 10 =$  <hr/>	<b>3</b> $\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 696 \\ + 52 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 8 \\ \times 5 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 40 \\ \times 4 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 315 \\ + 62 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 656 \\ - 165 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 3 \\ \times 9 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 235 \\ + 121 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 61 \\ \times 5 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 333 \\ - 22 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 335 \\ - 123 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$
<b>17</b> $6 \overline{)24}$	<b>18</b> $\begin{array}{r} 8.5 \\ + 4.5 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 50 \\ \times 6 \\ \hline \end{array}$	<b>20</b> $\frac{2}{5} + \frac{1}{5} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 9.2 \\ + 6.0 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$$

**23**

$$8 \overline{)80}$$

**24**

$$3 \overline{)21}$$

**25**

$$\frac{2}{8} - \frac{1}{8} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 56 \\ \times 9 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 5.8 \\ - 2.6 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 5352 \\ - 5342 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 575 \\ + 453 \\ \hline \end{array}$$

**30**

$$14 \overline{)658}$$

**31**

$$\begin{array}{r} 5596 \\ + 4251 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 7.1 \\ - 3.7 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5556 \\ - 4746 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 568 \\ - 59 \\ \hline \end{array}$$

**35**

$$\frac{3}{9} + \frac{2}{9} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 3312 \\ + 3025 \\ \hline \end{array}$$

**37**

$$\frac{6}{7} - \frac{2}{7} =$$

\_\_\_\_\_

**38**

$$5 \overline{)123}$$



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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 30 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	37	1	0	20.	$\frac{3}{5}$	3	0
2.	6	2	0	21.	15.2	2	0
3.	14	1	0	22.	18	1	0
4.	748	2	0	23.	10	2	0
5.	40	1	0	24.	7	2	0
6.	160	1	0	25.	$\frac{1}{8}$	3	0
7.	377	2	0	26.	504	2	0
8.	24	1	0	27.	3.2	3	0
9.	491	2	0	28.	10	1	0
10.	27	2	0	29.	1028	2	0
11.	356	1	0	30.	47	3	0
12.	305	2	0	31.	9847	2	0
13.	311	1	0	32.	3.4	3	0
14.	8	1	0	33.	810	3	0
15.	212	1	0	34.	509	2	0
16.	21	1	0	35.	$\frac{5}{9}$	3	0
17.	4	2	0	36.	6337	2	0
18.	13	3	0	37.	$\frac{4}{7}$	3	0
19.	300	1	0	38.	24 r3; 24.6; $24\frac{3}{5}$	3	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $14 + 18 =$  <hr/>	<b>2</b> $15 - 12 =$  <hr/>	<b>3</b> $\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 855 \\ + 83 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 52 \\ \times 4 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 224 \\ + 61 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 576 \\ - 339 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 8 \\ \times 1 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 312 \\ + 125 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 60 \\ \times 3 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 244 \\ - 40 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 366 \\ - 116 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$
<b>17</b> $2 \overline{)34}$	<b>18</b> $\begin{array}{r} 7.1 \\ + 2.9 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 30 \\ \times 2 \\ \hline \end{array}$	<b>20</b> $\frac{3}{9} + \frac{1}{9} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 9.6 \\ + 2.0 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$$

**23**

$$9 \overline{)81}$$

**24**

$$5 \overline{)55}$$

**25**

$$\frac{5}{9} - \frac{1}{9} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 66 \\ \times 9 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 6.6 \\ - 2.4 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 3564 \\ - 2124 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 575 \\ + 353 \\ \hline \end{array}$$

**30**

$$45 \overline{)765}$$

**31**

$$\begin{array}{r} 5686 \\ + 3171 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 8.2 \\ - 4.9 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5695 \\ - 3339 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 956 \\ - 85 \\ \hline \end{array}$$

**35**

$$\frac{4}{10} + \frac{3}{10} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 3653 \\ + 3201 \\ \hline \end{array}$$

**37**

$$\frac{6}{7} - \frac{4}{7} =$$

\_\_\_\_\_

**38**

$$2 \overline{)135}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 31 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	32	1	0	20.	$\frac{4}{9}$	3	0
2.	3	2	0	21.	11.6	2	0
3.	14	1	0	22.	32	1	0
4.	938	2	0	23.	9	2	0
5.	15	1	0	24.	11	2	0
6.	208	1	0	25.	$\frac{4}{9}$	3	0
7.	285	2	0	26.	594	2	0
8.	24	1	0	27.	4.2	3	0
9.	237	2	0	28.	1440	1	0
10.	8	2	0	29.	928	2	0
11.	437	1	0	30.	17	3	0
12.	180	2	0	31.	8857	2	0
13.	204	1	0	32.	3.3	3	0
14.	18	1	0	33.	2356	3	0
15.	250	1	0	34.	871	2	0
16.	21	1	0	35.	$\frac{7}{10}$	3	0
17.	17	2	0	36.	6854	2	0
18.	10	3	0	37.	$\frac{2}{7}$	3	0
19.	60	1	0	38.	67 r1; 67.5; $67\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2

Student:

Teacher:

Date:

<b>1</b> $17 + 14 =$  <hr/>	<b>2</b> $16 - 15 =$  <hr/>	<b>3</b> $\begin{array}{r} 4 \\ \times 5 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 576 \\ + 72 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 13 \\ \times 3 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 222 \\ + 63 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 955 \\ - 149 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 442 \\ + 133 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 52 \\ \times 2 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 265 \\ - 35 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 3 \\ \times 6 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 165 \\ - 134 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$
<b>17</b> $4 \overline{)36}$	<b>18</b> $\begin{array}{r} 6.9 \\ + 5.9 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 30 \\ \times 4 \\ \hline \end{array}$	<b>20</b> $\frac{1}{3} + \frac{1}{3} =$  <hr/>

Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 9.6 \\ + 2.1 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

**23**

$$2 \overline{)16}$$

**24**

$$3 \overline{)54}$$

**25**

$$\frac{5}{9} - \frac{4}{9} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 58 \\ \times 6 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 8.2 \\ - 5.1 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 4365 \\ - 2155 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 568 \\ + 514 \\ \hline \end{array}$$

**30**

$$19 \overline{)665}$$

**31**

$$\begin{array}{r} 5659 \\ + 3232 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 3.0 \\ - 1.2 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5569 \\ - 2192 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 567 \\ - 76 \\ \hline \end{array}$$

**35**

$$\frac{4}{7} + \frac{1}{7} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 2124 \\ + 2650 \\ \hline \end{array}$$

**37**

$$\frac{7}{8} - \frac{4}{8} =$$

\_\_\_\_\_

**38**

$$5 \overline{)153}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 32 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	31	1	0	20.	$\frac{2}{3}$	3	0
2.	1	2	0	21.	11.7	2	0
3.	20	1	0	22.	24	1	0
4.	648	2	0	23.	8	2	0
5.	14	1	0	24.	18	2	0
6.	39	1	0	25.	$\frac{1}{9}$	3	0
7.	285	2	0	26.	348	2	0
8.	54	1	0	27.	3.1	3	0
9.	806	2	0	28.	2210	1	0
10.	40	2	0	29.	1082	2	0
11.	575	1	0	30.	35	3	0
12.	104	2	0	31.	8891	2	0
13.	230	1	0	32.	1.8	3	0
14.	18	1	0	33.	3377	3	0
15.	31	1	0	34.	491	2	0
16.	28	1	0	35.	$\frac{5}{7}$	3	0
17.	9	2	0	36.	4774	2	0
18.	12.8	3	0	37.	$\frac{3}{8}$	3	0
19.	120	1	0	38.	30 r3; 30.6; $30\frac{3}{5}$	3	0

Subtotal 1

Subtotal 2

**TOTAL = Subtotal 1 + Subtotal 2**

Student:

Teacher:

Date:

<b>1</b> $14 + 17 =$  <hr/>	<b>2</b> $18 - 13 =$  <hr/>	<b>3</b> $\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$	<b>4</b> $\begin{array}{r} 655 \\ + 82 \\ \hline \end{array}$
<b>5</b> $\begin{array}{r} 6 \\ \times 9 \\ \hline \end{array}$	<b>6</b> $\begin{array}{r} 40 \\ \times 5 \\ \hline \end{array}$	<b>7</b> $\begin{array}{r} 325 \\ + 53 \\ \hline \end{array}$	<b>8</b> $\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$
<b>9</b> $\begin{array}{r} 576 \\ - 486 \\ \hline \end{array}$	<b>10</b> $\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$	<b>11</b> $\begin{array}{r} 344 \\ + 225 \\ \hline \end{array}$	<b>12</b> $\begin{array}{r} 34 \\ \times 2 \\ \hline \end{array}$
<b>13</b> $\begin{array}{r} 165 \\ - 51 \\ \hline \end{array}$	<b>14</b> $\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$	<b>15</b> $\begin{array}{r} 263 \\ - 163 \\ \hline \end{array}$	<b>16</b> $\begin{array}{r} 4 \\ \times 6 \\ \hline \end{array}$
<b>17</b> $6 \overline{)60}$	<b>18</b> $\begin{array}{r} 9.6 \\ + 8.7 \\ \hline \end{array}$	<b>19</b> $\begin{array}{r} 50 \\ \times 3 \\ \hline \end{array}$	<b>20</b> $\frac{1}{6} + \frac{4}{6} =$  <hr/>



Student:

Teacher:

Date:

**21**

$$\begin{array}{r} 8.1 \\ + 2.0 \\ \hline \end{array}$$

**22**

$$\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$$

**23**

$$2 \overline{)12}$$

**24**

$$6 \overline{)24}$$

**25**

$$\frac{3}{9} - \frac{2}{9} =$$

\_\_\_\_\_

**26**

$$\begin{array}{r} 58 \\ \times 6 \\ \hline \end{array}$$

**27**

$$\begin{array}{r} 7.5 \\ - 6.1 \\ \hline \end{array}$$

**28**

$$\begin{array}{r} 5665 \\ - 3564 \\ \hline \end{array}$$

**29**

$$\begin{array}{r} 568 \\ + 441 \\ \hline \end{array}$$

**30**

$$82 \overline{)656}$$

**31**

$$\begin{array}{r} 5586 \\ + 3131 \\ \hline \end{array}$$

**32**

$$\begin{array}{r} 9.1 \\ - 5.8 \\ \hline \end{array}$$

**33**

$$\begin{array}{r} 5755 \\ - 5482 \\ \hline \end{array}$$

**34**

$$\begin{array}{r} 576 \\ - 48 \\ \hline \end{array}$$

**35**

$$\frac{2}{10} + \frac{1}{10} =$$

\_\_\_\_\_

**36**

$$\begin{array}{r} 4330 \\ + 3323 \\ \hline \end{array}$$

**37**

$$\frac{7}{8} - \frac{6}{8} =$$

\_\_\_\_\_

**38**

$$2 \overline{)105}$$

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. For more information and examples of alternative correct answers, please refer to the Scoring section of the M-COMP manual.

### Grade 4, Probe 33 Answer Key

Item No.	Answer	Correct	Incorrect	Item No.	Answer	Correct	Incorrect
1.	31	1	0	20.	$\frac{5}{6}$	3	0
2.	5	2	0	21.	10.1	2	0
3.	14	1	0	22.	16	1	0
4.	737	2	0	23.	6	2	0
5.	54	1	0	24.	4	2	0
6.	200	1	0	25.	$\frac{1}{9}$	3	0
7.	378	2	0	26.	348	2	0
8.	24	1	0	27.	1.4	3	0
9.	90	2	0	28.	2101	1	0
10.	4	2	0	29.	1009	2	0
11.	569	1	0	30.	8	3	0
12.	68	2	0	31.	8717	2	0
13.	114	1	0	32.	3.3	3	0
14.	35	1	0	33.	273	3	0
15.	100	1	0	34.	528	2	0
16.	24	1	0	35.	$\frac{3}{10}$	3	0
17.	10	2	0	36.	7653	2	0
18.	18.3	3	0	37.	$\frac{1}{8}$	3	0
19.	150	1	0	38.	52 r1; 52.5; $52\frac{1}{2}$	3	0

Subtotal 1

Subtotal 2

TOTAL = Subtotal 1 + Subtotal 2