



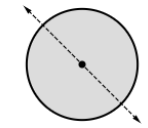
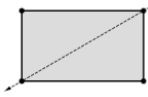
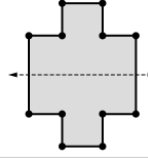
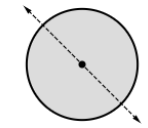
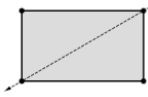
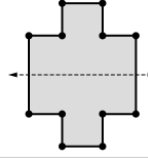
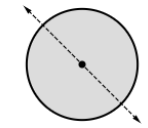
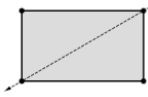
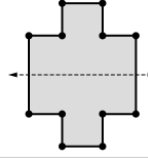
## **Draft MCAP Practice Test Answer and Alignment Document Mathematics – Grade 4 Online**

The following pages include the answer keys for all machine-scored items, as well as a sample top score response for hand-scored items. Please note that this document is still in draft form and will be posted to the MCAP mathematics practice test page ([support.mdassessments.com/practice-tests/math/](http://support.mdassessments.com/practice-tests/math/)) when it is fully completed. The finalized document may have slight differences from what is shown below. Until the finalized form of this document is posted, please use the contents of this document to help prepare for the MCAP mathematics assessment.

As a note:

- Constructed Response Items will show an answer key with sample student responses. Other valid methods for solving the problem can earn full credit unless a specific method is required by the item.
- In Constructed Response items where scores are awarded for full and partial credit, the definition of partial credit will be confirmed during range-finding (reviewing sets of real student work).
- If students make a computation error, they can still earn points for reasoning or modeling.

# Section 1

Item Number	Answer Key	Evidence Statement/ Content Scope												
1	A	4.NF.A.2												
2	<div> <div> <div>20</div> <div>+</div> <div>6</div> </div> <div> <div>10</div> <div>+</div> <div>8</div> </div> <div> <div>200</div> <div>60</div> <div>160</div> <div>48</div> </div> </div> <div> <math>26 \times 18 = 468</math> </div>	4.NBT.B.5-2												
3	D	4.M.1 4.MD.C.7 4.M.1-3												
4	<table> <tr> <th>Shape</th><th>Appears to Be a Line of Symmetry</th><th>Does <b>Not</b> Appear to Be a Line of Symmetry</th></tr> <tr> <td></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr> <td></td><td><input type="checkbox"/></td><td><input checked="" type="checkbox"/></td></tr> <tr> <td></td><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> </table>	Shape	Appears to Be a Line of Symmetry	Does <b>Not</b> Appear to Be a Line of Symmetry		<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.G.A.3
Shape	Appears to Be a Line of Symmetry	Does <b>Not</b> Appear to Be a Line of Symmetry												
	<input checked="" type="checkbox"/>	<input type="checkbox"/>												
	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
	<input checked="" type="checkbox"/>	<input type="checkbox"/>												

Item Number	Answer Key	Evidence Statement/ Content Scope
5	<p>Sample Top Score Response:</p> <p>The student divided correctly, but <b>0.20</b> hour is not the same as <b>20</b> minutes.</p> <p><b>0.20</b> hour is <math>\frac{2}{10}</math> of an hour and <b>20</b> minutes is <math>\frac{1}{3}</math> of an hour.</p> <p>Before dividing by <b>10</b>, the student could have changed <b>2</b> hours to <b>120</b> minutes.</p> <p><b>120</b> minutes <math>\div 10 = 12</math> minutes.</p> <p>So it takes <b>12</b> minutes for the train to go around the museum <b>1</b> time.</p>	<p>4.R.2</p> <p>4.NF.C.6</p> <p>4.MD.A.2</p>
6	$2\frac{2}{4}$ or equivalent	4.NF.B.3c
7	A, B, E	<p>4.M.1</p> <p>4.MD.B.4</p> <p>4.M.1-1</p>
8	D	4.NF.B.4c
9	10	4.OA.A.3-1

## Section 2

Item Number	Answer Key	Evidence Statement/ Content Scope
1	C	4.NBT.B.6
2	D, F	4.NF.B.3b
3	C	4.R.2 4.NF.C.5
4	800000	4.NBT.A.3
5	<p>Sample Top Score Response:</p> <p>The perimeter of the floor is <math>18 + 14 + 18 + 14 = 64</math> feet.</p> <p>The width of the two doors needs to be subtracted. There are 2 doors with a width of 3 feet. The total width is <math>2 \times 3 = 6</math> feet. So the length of baseboards, in feet, that are needed is <math>64 - 6 = 58</math>.</p> <p>The length of each baseboard is 8 feet. <math>58 \div 8 = 7\frac{1}{4}</math> feet, so Megan needs to buy 8 baseboards.</p> <p>The total cost, in dollars, is <math>8 \times 11 = 88</math>.</p>	4.M.1 4.OA.A.3-2 4.MD.A.3 4.M.1-4
6	<p>The shaded parts of the models show that the fraction <math>\frac{1}{3}</math> is equivalent to the fraction <math>\frac{4}{12}</math> because <math>\frac{1}{3} = \frac{1 \times 4}{3 \times 4}</math>.</p>	4.NF.A.1
7	C, E	4.R.4 4.OA.A.3-2
8	$\frac{4}{8}$ or equivalent	4.MD.B.4
9	$40 = 8 \times 5$ or equivalent	4.OA.A.1-2

### Section 3

Item Number	Answer Key	Evidence Statement/ Content Scope										
1	A	4.MD.C.5b										
2	2.05	4.NF.C.6										
3	<div>First, the custodian should <div>multiply the length by the width</div></div> <div>Next, the custodian should <div>divide the result by 2</div>.</div>	4.M.1 4.MD.A.3 4.M.1-3										
4	$\frac{2}{8}$ or equivalent	4.NF.B.3d										
5	<p>Sample Top Score Response:</p> <p>The model could be used to find the partial products.</p> <p>70 and 8 are each multiplied by 50 and 4. 3500 is the product of 50 and 70. 400 is the product of 50 and 8. 280 is the product of 70 and 4. And 32 is the product of 8 and 4.</p> <p>Lastly, the partial products should be added together to get the product of 4,212.</p>	4.R.1 4.NBT.B.5-1										
6	D	4.M.1 4.MD.B.4 4.M.1-2										
7	<table><tr><th>Could be solved using <math>30 \times 40</math></th><th>Could not be solved using <math>30 \times 40</math></th></tr><tr><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr><tr><td><input checked="" type="radio"/></td><td><input type="radio"/></td></tr><tr><td><input type="radio"/></td><td><input checked="" type="radio"/></td></tr><tr><td><input checked="" type="radio"/></td><td><input type="radio"/></td></tr></table>	Could be solved using $30 \times 40$	Could not be solved using $30 \times 40$	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	4.OA.A.2
Could be solved using $30 \times 40$	Could not be solved using $30 \times 40$											
<input type="radio"/>	<input checked="" type="radio"/>											
<input checked="" type="radio"/>	<input type="radio"/>											
<input type="radio"/>	<input checked="" type="radio"/>											
<input checked="" type="radio"/>	<input type="radio"/>											
8	A, E	4.NBT.A.2										
9	<div><div></div><div></div><div></div><div></div>1 whole teaspoon</div> <div><div></div><div></div><div></div><div></div><div></div>1 whole teaspoon</div> <div><div></div><div></div><div></div><div></div><div></div><div></div>1 whole teaspoon</div>	4.NF.B.4a										

## Section 4

Item Number	Answer Key	Evidence Statement/ Content Scope
1	D	4.NF.C.7
2	10, 17, 24	4.OA.C.5
3	B, E	4.R.3 4.NBT.A.3
4	A	4.MD.A.3
5	<p>Sample Top Score Response:</p> <p>The amounts of time from Sunday to Thursday need to be subtracted from <math>3\frac{5}{10}</math>.</p> $3\frac{5}{10} - \frac{6}{10} = 2\frac{9}{10}$ $2\frac{9}{10} - \frac{3}{10} = 2\frac{6}{10}$ $2\frac{6}{10} - 3 \times \frac{4}{10} = \frac{26}{10} - \frac{12}{10} = \frac{14}{10}$ <p>The athlete needs to exercise <math>1\frac{4}{10}</math> more hours this week.</p>	4.M.1 4.NF.B.3d 4.NF.B.4c 4.M.1-4
6	2071	4.NBT.B.4-2
7	<p>The claim is incorrect because the student only compared the <input type="text" value="numerators"/>.</p> <p>The student should have compared the number of <input type="text" value="shaded parts"/> and the <input type="text" value="size of each part"/> in each model.</p>	4.R.1 4.NF.A.2
8	$\frac{38}{100}$ or equivalent	4.NF.C.5