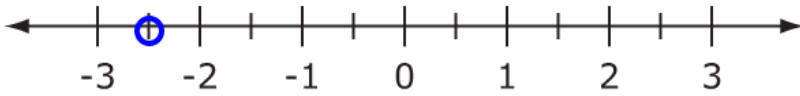
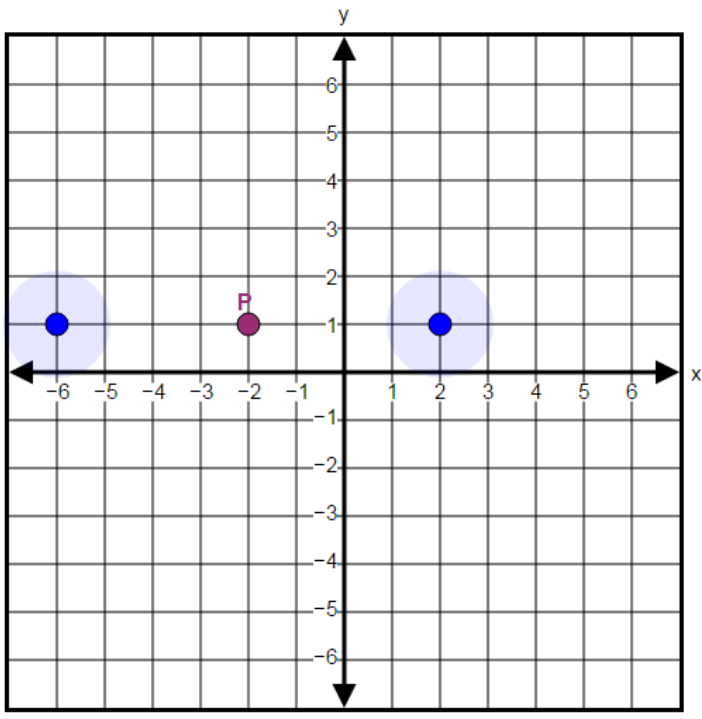


Item Number	Answer Key	Evidence Statement Key										
1.	B	6.EE.1-2										
2.	48	6.EE.2c-1										
3.	D	6.EE.6										
4.	$\frac{15}{16}$ or equivalent fraction	6.G.2-1										
5.	3	6.Int.1										
6.	7	6.NS.1-2										
7.	C	6.NS.1-2										
8.	876.5	6.NS.2										
9.	11.389	6.NS.3-2										
10.	86.5	6.NS.3-4										
11.	A	6.NS.4-2										
12.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #ADD8E6;">Locations above Sea Level</th> <th style="background-color: #ADD8E6;">Locations below Sea Level</th> </tr> </thead> <tbody> <tr> <td>Gas Station: 1,926 feet</td> <td>Campground: -218 feet</td> </tr> <tr> <td>Ranger Station: 10 feet</td> <td>Park Hotel: -190 feet</td> </tr> <tr> <td>Gift Shop: 3,000 feet</td> <td>Visitor Center: -196 feet</td> </tr> <tr> <td style="height: 100px;"></td> <td style="height: 100px;"></td> </tr> </tbody> </table>	Locations above Sea Level	Locations below Sea Level	Gas Station: 1,926 feet	Campground: -218 feet	Ranger Station: 10 feet	Park Hotel: -190 feet	Gift Shop: 3,000 feet	Visitor Center: -196 feet			6.NS.5
Locations above Sea Level	Locations below Sea Level											
Gas Station: 1,926 feet	Campground: -218 feet											
Ranger Station: 10 feet	Park Hotel: -190 feet											
Gift Shop: 3,000 feet	Visitor Center: -196 feet											

13.		6.NS.6a
14.	A	6.NS.6b-1
15.		6.NS.8
16.	5	6.RP.2
17.	70	6.RP.3c-1
18.	A	6.RP.3d
19.	A	6.SP.3
20.	Equation: $x + 1\frac{3}{4} = 5\frac{1}{4}$ or equivalent Solution: $3\frac{1}{2}$ or equivalent	6.EE.7
21.	Part A: A, F Part B: 24	6.G.1
22.	Part A: A, E Part B: 3	6.G.4
23.	Part A: 65 Part B: 3.25	6.SP.5
24.	Part A: 96 Part B: A Part C: $8\frac{1}{3}$ or equivalent Part D:	6.RP.3b

	The worker unpacked <input type="text" value="54"/> <input type="text" value="more"/> books in 9 minutes than the manager unpacked in 9 minutes.	
25.	Part A: See Rubric Part B: See Rubric	6.C.5
26.	Part A: See Rubric Part B: See Rubric	6.C.8-1
27.	Part A: See Rubric Part B: See Rubric	6.C.9
28.	Part A: $5n$ or equivalent Part B: See Rubric	6.D.1
29.	Part A: See Rubric Part B: See Rubric	6.D.2
30.	See Rubric	6.D.3

### #25 Rubric Part A

Score	Description
1	<p>Student response includes the following element.</p> <ul style="list-style-type: none"><li>• <b>Reasoning component</b> = 1 point<ul style="list-style-type: none"><li>○ The student uses correct reasoning to describe the location of point <math>K</math> in relation to point <math>J</math>.</li></ul></li></ul> <p>Sample Student Response:</p> <p>"Point <math>K</math> is one-half unit to the left of point <math>J</math>."</p>
0	Student response is incorrect or irrelevant.

### #25 Rubric Part B

Score	Description
2	<p>Student response includes the following 2 elements.</p> <ul style="list-style-type: none"><li>• <b>Computation component</b> = 1 point<ul style="list-style-type: none"><li>○ The student correctly identifies that the ordered pair <math>(-3.5, 4)</math> and the ordered pair <math>(-3.5, -4)</math> both have the same <math>x</math>-value.</li></ul></li><li>• <b>Reasoning component</b> = 1 point<ul style="list-style-type: none"><li>○ The student uses correct reasoning to describe that reflection was used to graph point <math>L</math> from point <math>K</math>.</li></ul></li></ul> <p>Sample Student Response:</p> <p>"Point <math>L</math> reflected across the <math>x</math>-axis, because the ordered pair of point <math>K</math> is <math>(-3.5, 4)</math> and the ordered pair of point <math>L</math> is <math>(-3.5, -4)</math>. The <math>y</math> value changes from 4 to <math>-4</math>."</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"><li>• The student may receive a combined total of 2 points if the reasoning processes are correct but the student makes one or more computational errors resulting in incorrect answers.</li><li>• The student cannot receive more than 1 point for reasoning if the explanations, while sufficient to indicate that the student had correct reasoning, contain nonsense statements.</li></ul>
1	Student response includes 1 of the above elements.
0	Student response is incorrect or irrelevant.

### #26 Rubric Part A

Score	Description
2	<p>Student response includes the following 2 elements.</p> <ul style="list-style-type: none"> <li>• <b>Computation component</b> = 1 point               <ul style="list-style-type: none"> <li>◦ Correct number of parent volunteers, 18.</li> </ul> </li> <li>• <b>Reasoning component</b> = 1 point               <ul style="list-style-type: none"> <li>◦ Valid work or explanation for how to find the number of parent volunteers.</li> </ul> </li> </ul> <p>Sample Student Response:</p> <p>The number of students going on the trip is <math>8 \times 20 \times .90 = 144</math></p> <p>The number of parent volunteers going on the trip is <math>144 \div 8 = 18</math>.</p> <p>OR</p> <p>There are 8 classrooms of students, and 20 students in each classroom. This is a total of 160 students. Only 90% of the students can go on the trip, so multiply 160 by 0.90 to find the number of students going, or set up the proportion <math>\frac{x}{160} = \frac{90}{100} \rightarrow x = 144</math>. Then divide that number by 8 to find that the number of parent volunteers is 18.</p> <p>OR other valid explanation.</p>
1	Student response includes 1 of the above elements.
0	Student response is incorrect or irrelevant.

### #26 Rubric Part B

Score	Description
2	<p>Student response includes each of the following 2 elements.</p> <ul style="list-style-type: none"> <li>• <b>Computation component</b> = 1 point               <ul style="list-style-type: none"> <li>◦ Correct number of school buses, 4, or a correct number based on an incorrect number of students and/or number of parent volunteers from part A.</li> </ul> </li> <li>• <b>Reasoning component</b> = 1 point               <ul style="list-style-type: none"> <li>◦ Valid explanation or work</li> </ul> </li> </ul> <p>Sample Student Response:</p> <p>The number of teachers going on the trip is 4.</p>

	<p>The number of students is 144 and the number of parent volunteers is 18; therefore, the total number of people going on the trip is <math>144 + 18 + 4 = 166</math>.</p> <p>To find the number of school buses, divide <math>166 \div 44 = 3.77</math>.</p> <p>Therefore, the teacher needs to order 4 school buses to have room for everyone.</p>
<b>1</b>	Student response includes 1 of the above elements.
<b>0</b>	Student response is incorrect or irrelevant.

### #27 Rubric Part A

Score	Description
<b>2</b>	<p>Student response includes the following 2 elements.</p> <ul style="list-style-type: none"> <li>• <b>Reasoning component</b> = 1 point <ul style="list-style-type: none"> <li>○ The student explains or shows that Jack correctly rounded to the nearest ones place.</li> </ul> </li> <li>• <b>Reasoning component</b> = 1 point <ul style="list-style-type: none"> <li>○ The student explains or shows that Courtney correctly rounded to the nearest tens place.</li> </ul> </li> </ul> <p>Sample Student Response:</p> <p>“Jack correctly rounded the precipitation to the nearest ones place. This means that Cedar Falls, with a precipitation of 15.68, and River Valley, with a precipitation of 16.43, would both round to 16. Courtney correctly rounded the precipitations to the nearest ten. All four towns would round to 20.”</p>
<b>1</b>	Student response includes 1 of the above elements.
<b>0</b>	Student response is incorrect or irrelevant.

### #27 Rubric Part B

Score	Description
<b>2</b>	<p>Student response includes the following 2 elements.</p> <ul style="list-style-type: none"> <li>• <b>Computation component</b> = 1 point <ul style="list-style-type: none"> <li>○ The student provides a response that a precipitation amount can be greater than 21.45 (the amount must be greater than the precipitation amount for Hill City) and less than 21.55</li> </ul> </li> <li>• <b>Reasoning component</b> = 1 point <ul style="list-style-type: none"> <li>○ The student justifies that the conclusion is incorrect.</li> </ul> </li> </ul>

	<p>Sample Student Response:</p> <p>"The amount for Hill City rounded to the nearest tenth is 21.5. There are numbers above 21.5 that would also round to 21.5. The amount should be greater than 21.45 and less than 21.55."</p>
<b>1</b>	Student response includes 1 of the above elements.
<b>0</b>	Student response is incorrect or irrelevant.

### #28 Rubric Part A (Machine Scored)

Score	Description
<b>1</b>	<p>Student response includes the following element.</p> <ul style="list-style-type: none"> <li>• <b>Modeling component</b> = 1 point <ul style="list-style-type: none"> <li>○ The student provides an expression of <math>5n</math> or an expression equivalent to <math>5n</math>.</li> </ul> </li> </ul>
<b>0</b>	Student response is incorrect or irrelevant.

### #28 Rubric Part B

Score	Description
<b>2</b>	<p>Student response includes the following 2 elements.</p> <ul style="list-style-type: none"> <li>• <b>Computation component</b> = 1 point <ul style="list-style-type: none"> <li>○ The student provides a response of 110 students.</li> </ul> </li> <li>• <b>Modeling component</b> = 1 point <ul style="list-style-type: none"> <li>○ The student shows a correct strategy to determine the number of students needed to attend the activity night so that the student council will reach its goal</li> </ul> </li> </ul> <p>Sample Student Response:</p> <p>"<math>200 + 350 = 550</math> and <math>550 \div 5 = 110</math>, so 110 students need to attend the activity night." OR "The student council needs to collect <math>200 + 350 = 550</math> to reach its goal. Using my expression, I wrote the equation <math>5n = 550</math>, then divided both sides by 5 to get the number of students that need to attend the activity night, 110 students."</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• The student may receive a combined total of 2 points if the modeling</li> </ul>

	<p>process is correct but the student makes one or more computational errors resulting in incorrect answers.</p> <ul style="list-style-type: none"> <li>• The student may receive a total of 2 points if he or she computes the correct answers but shows no work or insufficient work to indicate a correct modeling process.</li> <li>• If a student writes an incorrect equation and answers the remaining prompts based on the equation, he or she can receive a combined total of 2 points if the remaining modeling is correct.</li> </ul>
<b>1</b>	Student response includes 1 of the above elements.
<b>0</b>	Student response is incorrect or irrelevant.

### #29 Rubric Part A

Score	Description
<b>4</b>	<p>Student response includes the following 4 elements.</p> <ul style="list-style-type: none"> <li>• <b>Computation component</b> = 1 point <ul style="list-style-type: none"> <li>◦ The student provides a response of 15 batches.</li> </ul> </li> <li>• <b>Modeling component</b> = 1 point <ul style="list-style-type: none"> <li>◦ The student provides a correct modeling procedure to find the total amount of snack mix needed.</li> </ul> </li> <li>• <b>Computation component</b> = 1 point <ul style="list-style-type: none"> <li>◦ The student provides a correct modeling procedure to find the total amount of snack mix from one recipe.</li> </ul> </li> <li>• <b>Modeling component</b> = 1 point <ul style="list-style-type: none"> <li>◦ The student provides a correct modeling procedure to find the number of batches or the number of time the recipe needs to be made.</li> </ul> </li> </ul> <p>Sample Student Response:</p> <p>"If each person will receive <math>\frac{3}{4}</math> cup, the 200 people would receive <math>200 \times \frac{3}{4} = 150</math> cups. The total amount of snack mix for one recipe would be <math>2\frac{1}{2} + 4\frac{1}{2} + 2\frac{1}{4} + \frac{3}{4} = 10</math> cups. Since the recipe makes 10 cups of snack mix, and 150 cups are needed, the number of batches that need to be made is <math>150 \div 10 = 15</math> batches."</p>



3	Student response includes 3 of the above elements.
2	Student response includes 2 of the above elements.
1	Student response includes 1 of the above elements.
0	Student response is incorrect or irrelevant.

### #29 Rubric Part B

Score	Description
2	<p>Student response includes the following 2 elements.</p> <ul style="list-style-type: none"> <li>• <b>Computation component</b> = 1 point <ul style="list-style-type: none"> <li>○ The student correctly calculates the amount of pretzels (<math>37\frac{1}{2}</math> cups or equivalent), the amount of dry cereal (<math>67\frac{1}{2}</math> cups or equivalent), the amount of peanuts (<math>33\frac{3}{4}</math> cups or equivalent), and the amount of raisins (<math>11\frac{1}{4}</math> cups or equivalent).</li> </ul> </li> <li>• <b>Modeling component</b> = 1 point <ul style="list-style-type: none"> <li>○ The student provides a correct modeling procedure to find the amount of each ingredient that is needed.</li> </ul> </li> </ul> <p>Sample Student Response:</p> <p>“To find the amount of each ingredient that is needed, multiply the 15 batches by the amount of the ingredient. Pretzels: <math>15 \times 2\frac{1}{2} = 37\frac{1}{2}</math> cups, Cereal: <math>15 \times 4\frac{1}{2} = 67\frac{1}{2}</math> cups, Peanuts: <math>15 \times 2\frac{1}{4} = 33\frac{3}{4}</math> cups, and Raisins: <math>15 \times \frac{3}{4} = 11\frac{1}{4}</math> cups.”</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• The student may receive a combined total of 4 points if the modeling processes are correct but the student makes more than one computational errors resulting in incorrect answers.</li> <li>• The student may receive a total of 2 points if he or she computes the correct answer but shows no work or insufficient work to indicate a correct modeling process.</li> </ul>
1	Student response includes 1 of the above elements.
0	Student response is incorrect or irrelevant.

### #30 Rubric

Score	Description
<b>3</b>	<p>Student response includes each of the following 3 elements.</p> <ul style="list-style-type: none"> <li>• <b>Computation component</b> = 1 point               <ul style="list-style-type: none"> <li>○ Reasonable estimate of the number of bags of oranges needed to make 1 gallon of juice. An acceptable reasonable estimate is 4-6 bags of oranges.</li> </ul> </li> <li>• <b>Computation component</b> = 1 point               <ul style="list-style-type: none"> <li>○ The cost of 1 gallon of juice based on the estimate of the number of bags of oranges.</li> </ul> </li> <li>• <b>Modeling component*</b> = 1 point               <ul style="list-style-type: none"> <li>○ Valid explanation of estimate and work shown</li> </ul> </li> </ul> <p>Sample Student Response:</p> <p>5 bags of oranges</p> <p>I multiplied <math>11 \times \frac{5}{2} = 27.5</math> to estimate the number of ounces from a bag with 11 oranges and <math>12 \times \frac{5}{2} = 30</math> for a bag with 12 oranges. If I go with the lower amount, <math>\frac{128}{27.5} \approx 4.65</math> bags, and if I go with the higher amount, <math>\frac{128}{30} \approx 4.27</math> bags. Either way, it is going to take 5 bags of oranges since she can only buy whole bags. The cost of 5 bags is <math>5(3.49) = \\$17.45</math>.</p>
<b>2</b>	Student response includes 2 of the above elements.
<b>1</b>	Student response includes 1 of the above elements.
<b>0</b>	Student response is incorrect or irrelevant.

**\*This item does not follow the normal rule that there must be 50% or more points for modeling.**