

MeTEOR Performance Task

Geometry

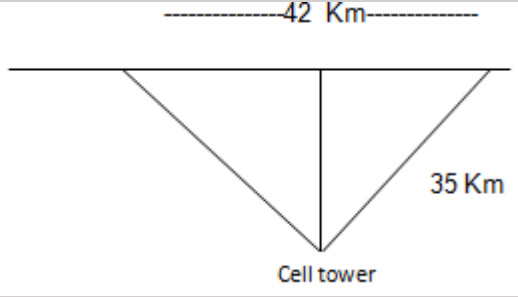
Mathematics
Right Triangles



Complete Performance Task Scoring Rubric *Right Triangle Side Lengths*

13-14 Proficient 11-12 Good 9-10 Satisfactory 8 Poor 0-7 Unsatisfactory

	Depth of Knowledge Level	Points	Total Possible Points for Task	Total Points Earned by Student
<p>Task 1:</p> <p>A. In a right triangle, the square of the hypotenuse equals the sum of the squares of the two legs.</p> <p>B. $a^2 + b^2 = c^2$</p> <p>C. $c = 17$ $a = 7$ $b = 8$</p>	1	<p>1</p> <p>1</p> <p>1</p>	3	
<p>Task 2:</p> <p>A. 40 meters saved</p> <p>B. Answers will vary. Possible Explanation: “The distance from “Just Enough’s” house to “Almost There’s” house is a distance of 137 meters if you add the two street distances together. When I use the Pythagorean Theorem to find the shortest distance between their houses I get 97 meters. However, the question asked for the distance saved by walking directly, so I then need to subtract the distance of the hypotenuse from the total leg distance- which is 40 meters.”</p>	2	<p>1</p> <p>2</p>	3	
<p>Task 3:</p> <p>A. The length of highway is 24 Kilometers.</p> <p>B. Answers will vary. Possible Explanation: “To find the length of the highway within the range of the cell tower I used the Converse of the Pythagorean Theorem to find the</p>	3	<p>1</p> <p>2</p>	3	

<p>missing leg which is 12. Then, I doubled the answer because the range goes in a circle and allows the signal to go in the opposite direction on the highway.”</p>				
<p>Task 4: A.</p>  <p>B. 28 Kilometers</p> <p>C. Answers will vary. Possible Justification: “My process is the most efficient. This is how I solved it: Since the highway shows the total length the signal can reach, I have to cut it in half to get the distance of the base of one triangle which is 21 Kilometers. Then, to find the distance the cell tower is from the highway I use the Converse of the Pythagorean Theorem to find the missing leg which is 28”.</p>	<p>3</p>	<p>1</p> <p>1</p> <p>3</p>	<p>5</p>	
TOTAL POINTS:				



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