

MeTEOR Performance Task

Geometry

Mathematics
Right Triangles

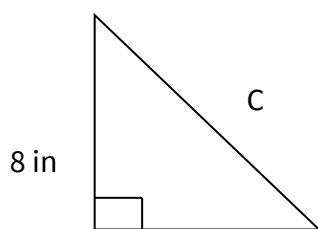
Performance Task Item: Right Triangle Side Lengths

Task/Question 1:

A. Using only words, write the Pythagorean Theorem:

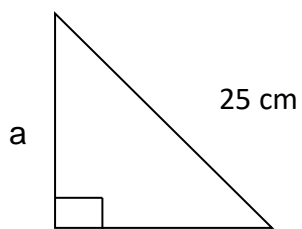
B. Write the Pythagorean Theorem as an equation:

C. Find the missing side length for each right triangle:



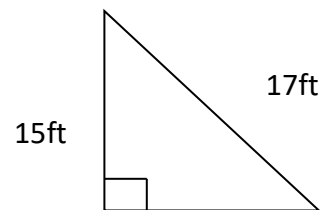
15 in

C = _____



24 cm

a = _____

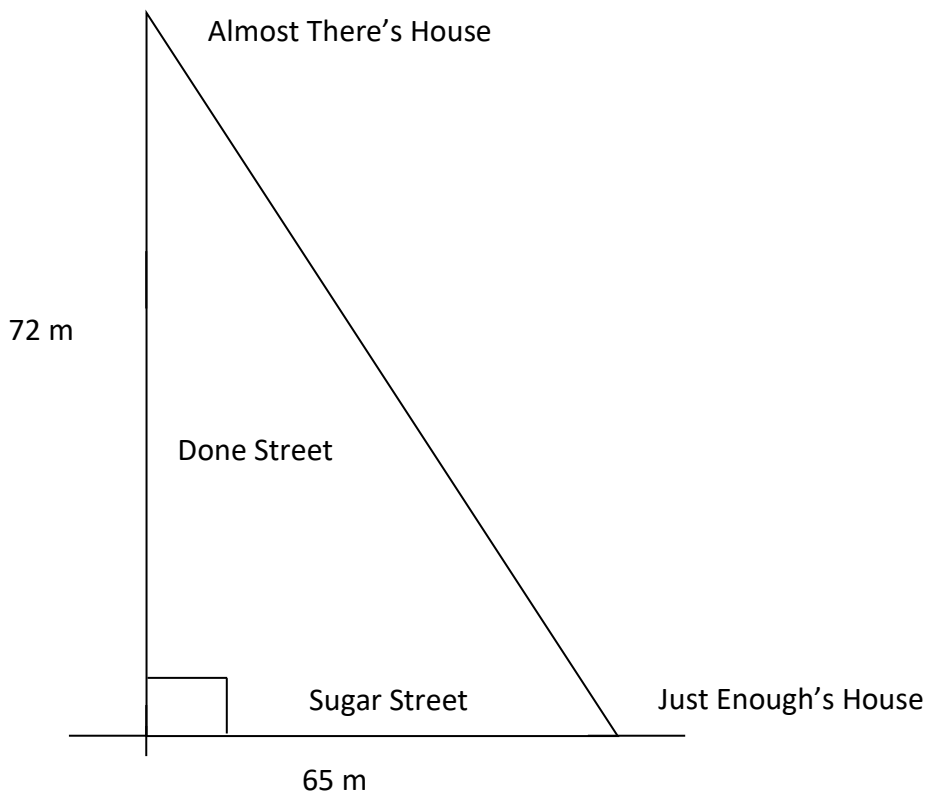


b

b = _____

Task/Question 2:

“Just Enough” lives on Sugar Street 65 meters from its intersection with Done Street.
 “Almost There” lives on Done Street, 72 meters from its intersection with Sugar Street.

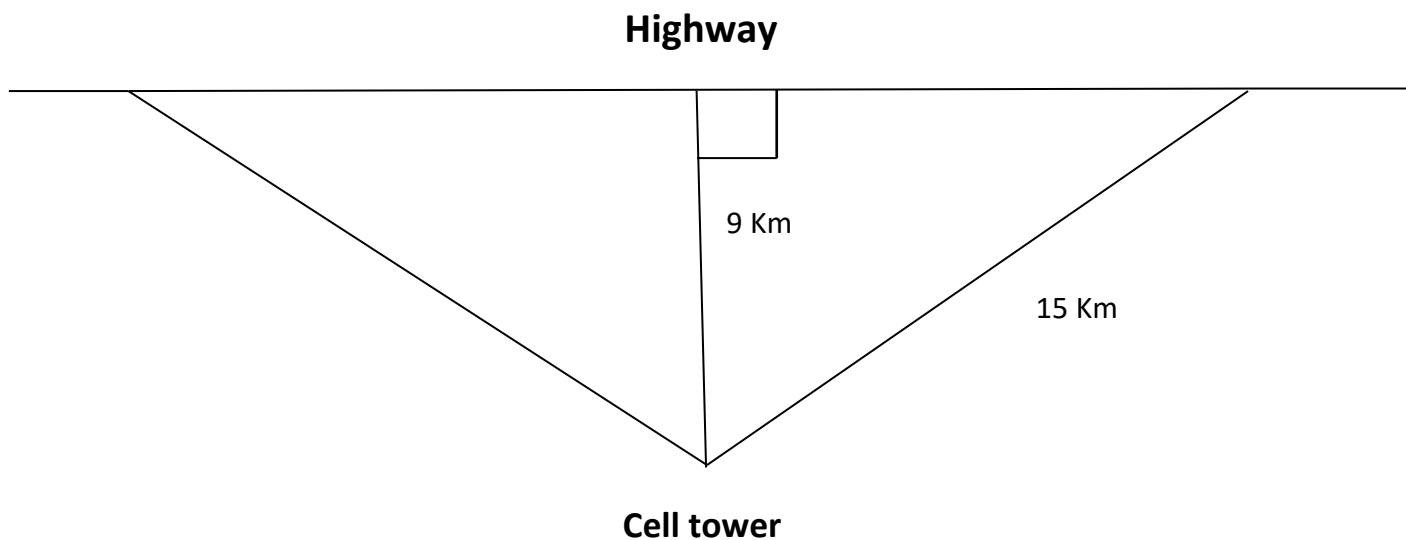


A. How many meters of walking could “Just Enough” save by walking directly to “Almost There’s” home instead of walking along the streets?

B. Explain how you figured out Part A:

Task/Question 3:

A cell tower is located 9 Kilometers off the highway. It has a range of 15 Kilometers.



- A.** What length of highway is within the cell tower's range to receive calls and other forms of data?

- B.** Explain how you figured out Part A:

Task/Question 4:

The phone company decided to broaden its cell tower range (from Task 3). The new signal covers a highway that is 42 Kilometers long and the signal from the cell tower is at a range of 35 Kilometers.

A. Draw a picture that is described in this new problem. Label each part.

B. Calculate how far off the road the cell tower is located:

C. Justify how your process is the **most efficient** for deciding how far off the road the cell tower is located:



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