

**GRADE 10 ESSENTIAL
UNIT D – GEOMETRY
MORE PYTHAGORAS PRACTICE**

Name: _____

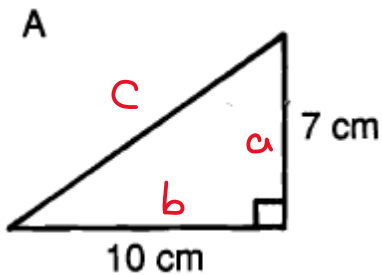
Date: _____

How Could You Describe a Dead Skunk?

Round each answer to the nearest tenth (if necessary). Find each answer in the box below and cross out the letter above it. **When you finish**, the answer to the title question will remain.

D	E	S	A	X	D	T	N	O	I	S	N	T	A	C	K	T
5.4 mi	29.3 yd	15.3 m	8 m	13.2 m	12.5 m	16.7 in.	41 ft	12.2 cm	6.1 mi	13.9 ft	42.5 ft	127.3 ft	28.7 yd	14.4 ft	17.0 in.	129.8 ft

1. Find the length of the hypotenuse of each right triangle:



$$c^2 = a^2 + b^2$$

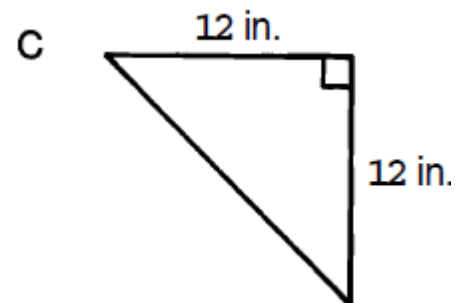
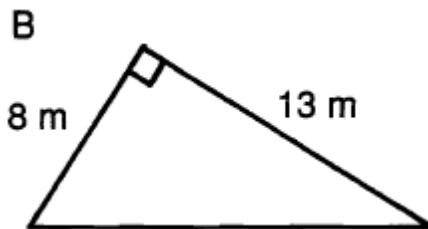
$$c^2 = 7^2 + 10^2$$

$$c^2 = 49 + 100 = 149$$

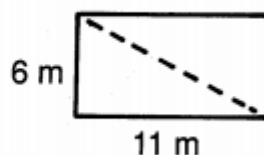
$$c = \sqrt{149} \approx 12.2 \text{ cm}$$

Follow model
←

SHOW WORK



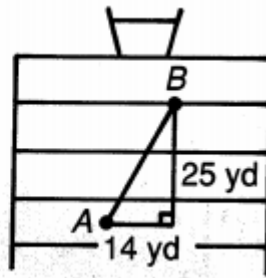
- ② A rectangle is 6 m wide and 11 m long. How long is the diagonal of the rectangle?



MrF

Draw your own diagrams ²
↓

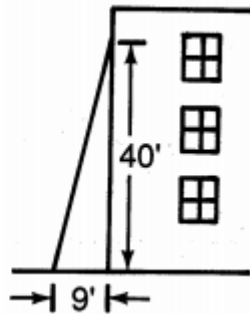
- 4) A quarterback at point A throws the football to a receiver who catches it at point B . How long was the pass?



- 5) A rope is stretched from the top of a 7-foot tent pole to a point on the ground 12 ft from the base of the pole. How long is the rope?

- 6) Kristin and her family left their campsite for a hike. They hiked 5 mi west and then 2 mi north. How far were they from the campsite?

- 7) The window of a burning building is 40 feet above the ground. The base of a ladder is placed 9 feet from the building. How long must the ladder be to reach the window?



- 8) The bases on a baseball diamond are 90 feet apart. How far is it from home plate to second base?

- 9) The lawn in front of Pythagoras Jr. High is in the shape of a rectangle 24 m long and 10 m wide. How many meters shorter is your walk if you walk diagonally across the lawn rather than along two sides of it?

Read the question!

SHOW WORK

Cryptic Quiz

1. What is the opposite of a professional eater?

C

8.8 19.6 18.5 8.8 10.9 8.8 3.3 9.8 70.7 1.4 70.7 14.5

2. How would you describe a job in the Acme Mitten Co. shipping department?

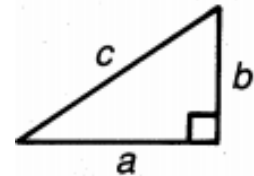
B

22.4 16.1 19.2 5 19.6 6 68 6 8 16.1 9.2 70.7 6.3

3. What can be right but never wrong?

8.8 19.6 7.4 8.8 19.6 6 8 70.7

For each exercise question, find the missing length. (Refer to the diagram at the right.) Round your answer to the nearest tenth (if necessary) and find it in the code. Each time the answer appears, write the letter of the exercise above it.



(H) $a = 9, b = 4, c =$ _____

(E) $a = 50, b = 50, c =$ _____

(C) $a = 8, b = 14, c =$ _____

(B) $a =$ _____, $b = 20, c = 30$

$$\begin{aligned}
 c^2 &= a^2 + b^2 \\
 30^2 &= a^2 + 20^2 \\
 900 &= a^2 + 400 \\
 \hookrightarrow a^2 &= 500; \quad a = \sqrt{500} \\
 &\quad a \approx 22.4
 \end{aligned}$$

SHOW WORK!

Ⓢ $a = \underline{\hspace{2cm}}, b = 3, c = 7$

Ⓥ $a = 6, b = \underline{\hspace{2cm}}, c = 11$

Ⓜ $a = \underline{\hspace{2cm}}, b = 5, c = 12$

Ⓦ $a = 1, b = 1, c = \underline{\hspace{2cm}}$

ⓐ $a = \underline{\hspace{2cm}}, b = 8, c = 10$

Ⓧ $a = \underline{\hspace{2cm}}, b = 16, c = 25$

Ⓒ $a = 5, b = \underline{\hspace{2cm}}, c = 6$

Ⓐ $a = 2, b = \underline{\hspace{2cm}}, c = 9$

$a^2 + b^2 = c^2$
 $5^2 + b^2 = 6^2$
 $25 + b^2 = 36$
 $b^2 = 11 ; b = \sqrt{11} \approx 3.3$

Ⓡ $a = 4, b = \underline{\hspace{2cm}}, c = 15$

Ⓛ $a = \underline{\hspace{2cm}}, b = 15, c = 17$

Ⓜ $a = 12, b = \underline{\hspace{2cm}}, c = 13$

Ⓝ $a = 10, b = \underline{\hspace{2cm}}, c = 22$