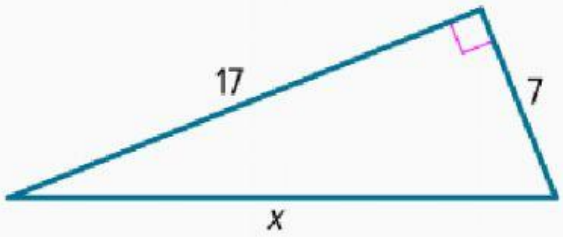
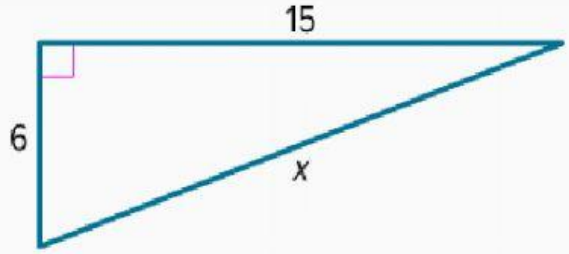
Pythagorean Theorem and Its Converse

Find the value of *x*.



The side opposite the right angle is the hypotenuse, so $c = x$.

$a^2 + b^2 = c^2$	Pythagorean Theorem
$17^2 + 7^2 = x^2$	$a =$ ☐, $b =$ ☐, and $c =$ ☐
☐ + ☐ $= x^2$	Simplify.
$338 = x^2$	Add.
$\sqrt{338} = x$	Take the positive square root of each side.
$13\sqrt{2} = x$	Simplify.



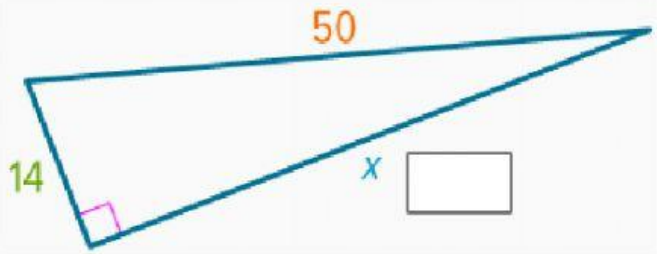
Find the value of *x*.

- A $3\sqrt{21}$
- B $3\sqrt{29}$
- C $9\sqrt{29}$
- D $\sqrt{286}$

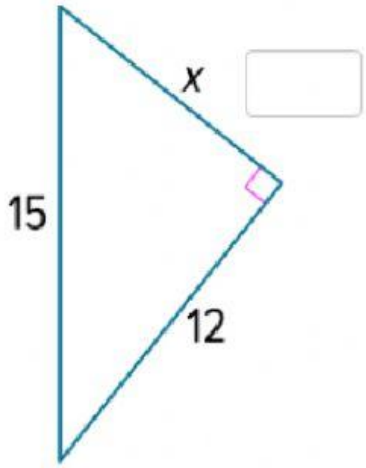
عزيزي الطالب : أولاً اجتهد في فهم ومذاكرة تمارين الكتاب(الكتاب أولاً). تمنياتي للجميع بالنجاح والتفوق

LIVEWORKSHEETS

Use a Pythagorean triple to find the value of *x*. Explain your reasoning.



Use a Pythagorean triple to find the value of *x*.



PAINTING Harper is helping her parents paint the window shutters on their house, and she wants to use an 18-foot ladder to reach the windows on the second floor. If Harper places the ladder 4 feet from the base of the house, how high are the windows from the ground?

Part A

Find the exact height of the windows.

- A $\sqrt{22}$ ft
- B $2\sqrt{77}$ ft
- C $4\sqrt{77}$ ft
- D $2\sqrt{85}$ ft

Part B

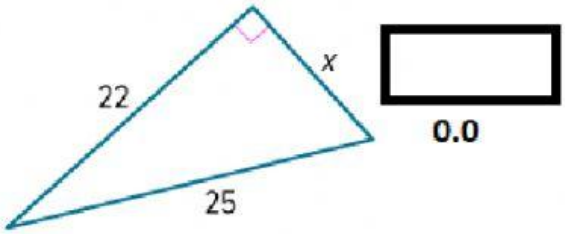
Estimate the height of the windows.

- A 17.1 ft
- B 17.5 ft
- C 18 ft
- D 18.4 ft

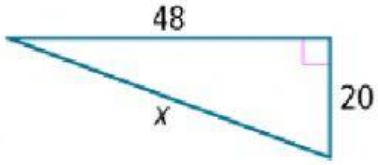
عزيزي الطالب : أولاً اجتهد في فهم ومذاكرة تمارين الكتاب(الكتاب أولاً). تمنياتي للجميع بالنجاح والتفوق

LIVEWORKSHEETS

Find the value of x.



Use a Pythagorean triple to find the value of x.



$x =$ ☐

Determine whether the points $J\,(1, 6)$, $K\,(3, 2)$, and $L\,(5, 3)$ can be the vertices of a triangle. If so, classify the triangle as *acute*, *right*, or *obtuse*.

- A) no
- B) yes; acute
- C) yes; right
- D) yes; obtuse

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LIVEWORKSHEETS