



Special Right Triangles

Find the value of x .

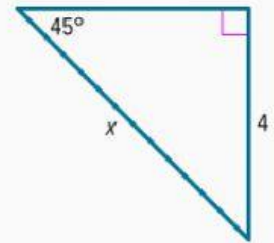
The acute angles of a right triangle are complementary, so the measure of the third angle is $90 - 45$ or 45° . Because this is a 45° - 45° - 90° triangle, use the 45° - 45° - 90° Triangle Theorem.

$$h = \ell \sqrt{2}$$

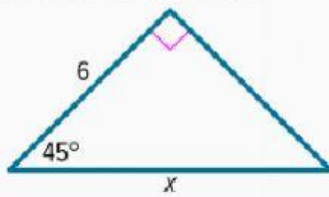
45° - 45° - 90° Triangle Theorem

$$x = \boxed{} \sqrt{2}$$

Substitution



Find the value of x .



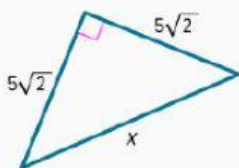
☐ A 3

☐ B $3\sqrt{2}$

☐ C 6

☐ D $6\sqrt{2}$

Find the value of x .



The legs of this right triangle have the same measure, so it is isosceles. Because this is a 45° - 45° - 90° triangle, use the 45° - 45° - 90° Triangle Theorem.

$$h = \ell \sqrt{2}$$

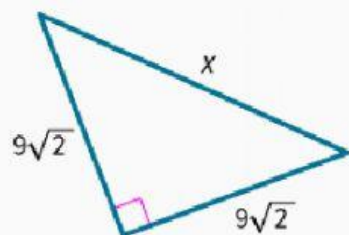
45° - 45° - 90° Triangle Theorem

$$\boxed{} = 5\sqrt{2} \cdot \sqrt{2}$$

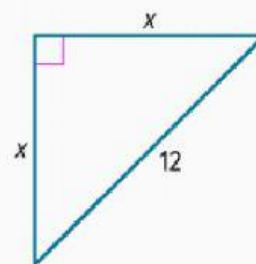
Substitution

$$\boxed{} = 5 \cdot \boxed{} \text{ or } \boxed{} \sqrt{2} \cdot \sqrt{2} = \boxed{}$$

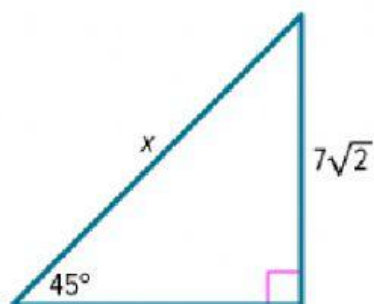
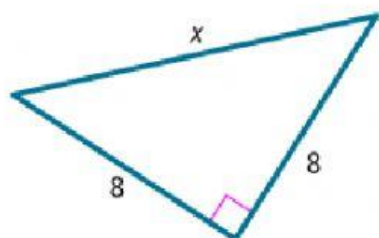
عزيزي الطالب : أولاً اجتهد في فهم ومذاكرة تمارين الكتاب (الكتاب أولاً). تمليتي للجميع بالتفوق والتفوق

Find the value of x .

- ☐ A 9
- ☐ B 18
- ☐ C $18\sqrt{2}$
- ☐ D 36

Find the value of x .

- ☐ A $3\sqrt{2}$
- ☐ B 6
- ☐ C $\frac{12}{\sqrt{2}}$
- ☐ D $12\sqrt{2}$

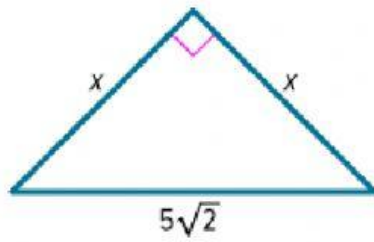
Find the value of x .Find the value of x .

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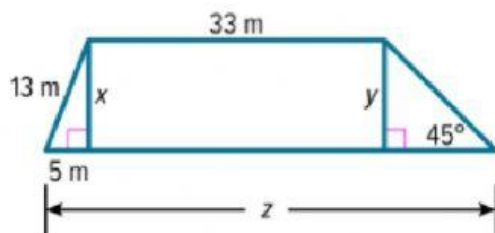
عزيزي الطالب : أولاً اجتهد في فهم ومذاكرة تمارين الكتاب (الكتاب أولاً) . تلميذاتي للجميع بالتفوق والتفوق



Find the value of x .



Find each missing measure. Then find the perimeter and area of the trapezoid. Round each answer to the nearest whole number, if necessary.



$$x = \boxed{} \text{ m}$$

$$y = \boxed{} \text{ m}$$

$$z = \boxed{} \text{ m}$$

$$\text{Perimeter} = \boxed{} \text{ m}$$

$$\text{Area} = \boxed{} \text{ m}^2$$



CAMPING Aiden is going camping this weekend. His camping tent can be modeled by a triangular prism. The entrance of the tent is approximately an equilateral triangle. If each edge of the entrance is 7 feet, how tall is the tent? Round your answer to the nearest hundredth, if necessary.

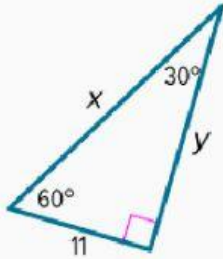
$$\boxed{} \text{ ft}$$



عزيزي الطالب : أولاً اجتهد في فهم ومذاكرة تمارين الكتاب (الكتاب أولاً) . تمليتي للجميع بالتجاح والتفوق



Find the values of x and y .

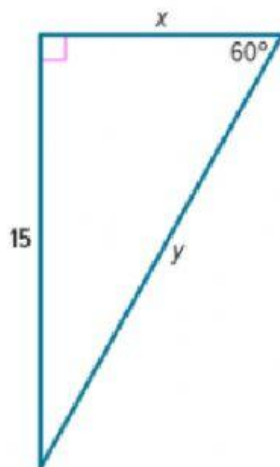


- ☐ A $x = \frac{11}{2}; y = \frac{11\sqrt{3}}{3}$
- ☐ B $x = 22; y = 11\sqrt{3}$
- ☐ C $x = 22; y = \frac{11\sqrt{3}}{3}$
- ☐ D $x = 11\sqrt{3}; y = 22$

This question has two parts. First, answer Part A. Then, answer Part B.

Part A

Find the value of each variable.



a. x

- ☐ A) 5
- ☐ B) $\frac{15}{2}$
- ☐ C) $\frac{15}{\sqrt{3}}$
- ☐ D) $\frac{15\sqrt{3}}{2}$
- ☐ E) $10\sqrt{3}$

Part B

b. y

- ☐ A) 5
- ☐ B) $\frac{15}{2}$
- ☐ C) $5\sqrt{3}$
- ☐ D) $\frac{15\sqrt{3}}{2}$
- ☐ E) $\frac{30}{\sqrt{3}}$

عزيزي الطالب : أولاً اجتهد في فهم ومذاكرة تمارين الكتاب (الكتاب أولاً). تمليني للجميع بالتفوق والتفوق