7.4 Special Right Triangles

Rules for Radicals _____

- 1) No _____ factors in the radical.
  - EX:
- 2) No _____ in the _____.
  - EX:
- 3) Radicals can be _____.
  - EX:

EX:

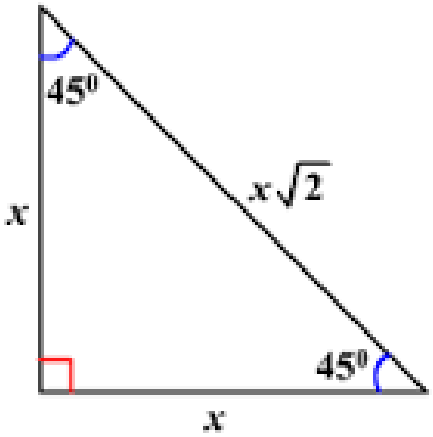
1. $6\sqrt{2} \cdot \sqrt{2}$

2. $\frac{6}{\sqrt{3}}$

3. $\frac{5}{\sqrt{2}}$

45º–45º –90º Triangles

- Have two _____ and one _____
- The two _____ are _____
- Equation to Use:

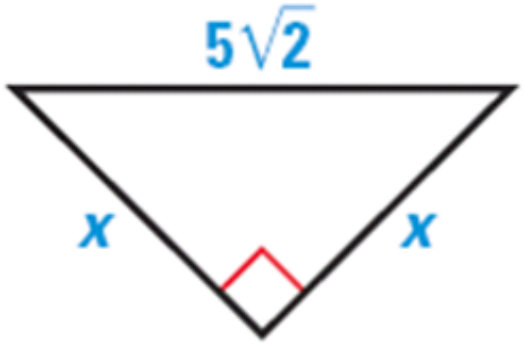


EX: Find the hypotenuse.

a.

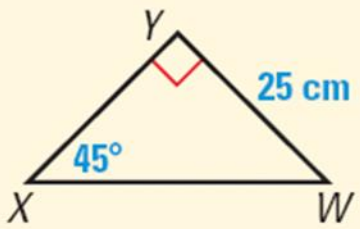
b.

EX: Find the legs.



EX:

Triangle WXY is a right triangle. Find the length of $\overline{WX}$.



(A) 50 cm

(B) $25\sqrt{2}$ cm

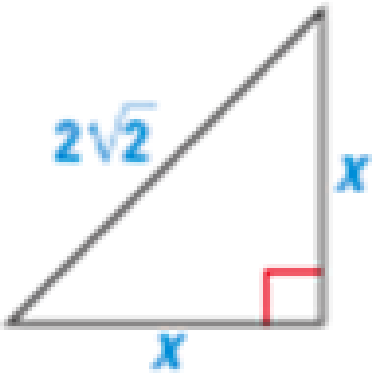
(C) 25 cm

(D) $\frac{25\sqrt{2}}{2}$ cm

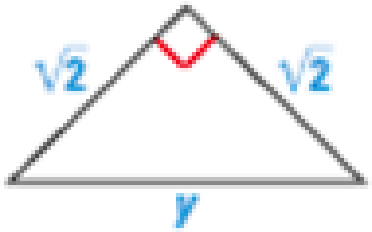
GUIDED PRACTICE for Examples 1, 2, and 3

Find the value of the variable.

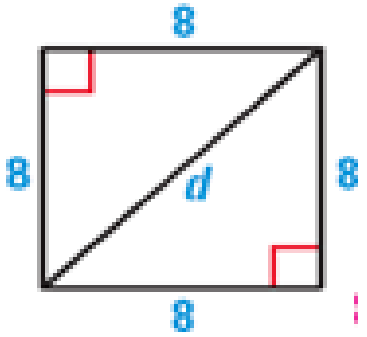
1.



2.

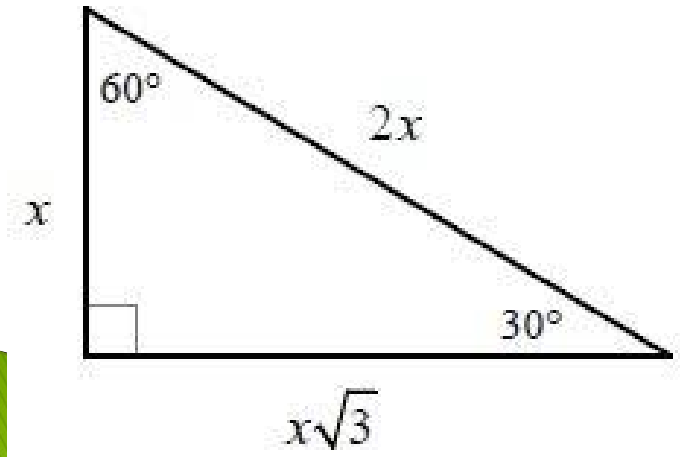


3.

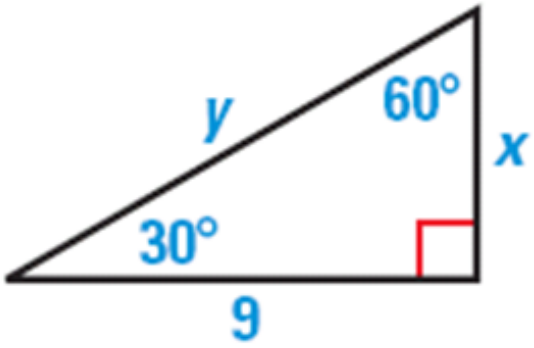


30^0-60^0-90^0 Triangles

- Have angles of _____.
- Short side – _____ from the _____
- Long side – _____ from the _____
- Equations to Use:

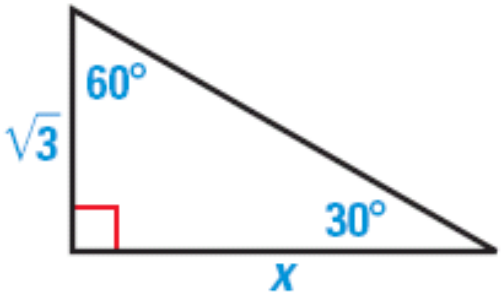


EX: Find x and y.



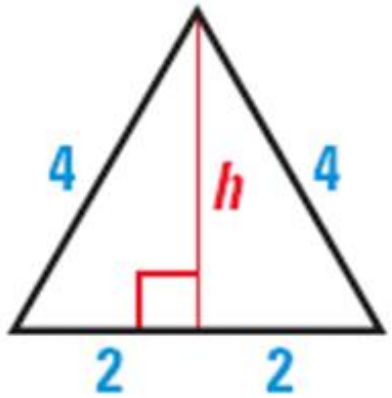
EX: Find x.

5.



EX: Find h.

6.



Daily Homework Quiz

5. **Find x, y and z.**