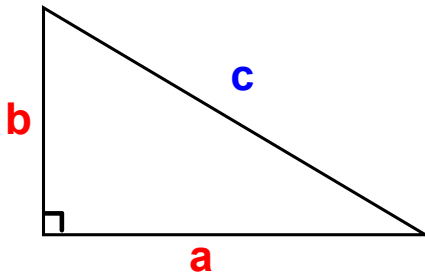


Pre-Chp. 13 Lesson: The Pythagorean Theorem

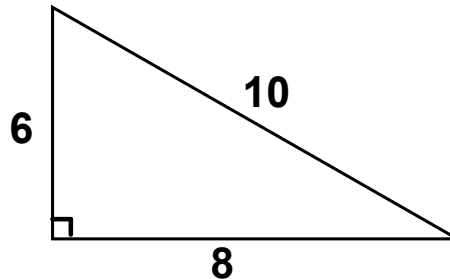
You should know all this stuff....

Given that **a** and **b** are the **leg lengths** of a right triangle and that **c** is the **hypotenuse** length, then $a^2 + b^2 = c^2$.



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

Ex.



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

$$6^2 + 8^2 = 10^2$$

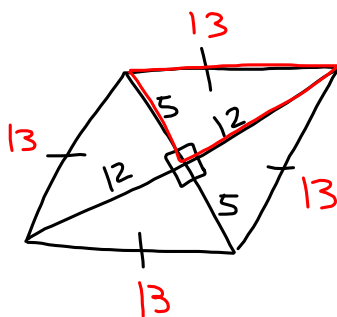
$$36 + 64 = 100$$

$$100 = 100$$

Mar 23-10:05 AM

Ex. If the diagonals of a **rhombus** measure 10 and 24, find the perimeter of the rhombus.

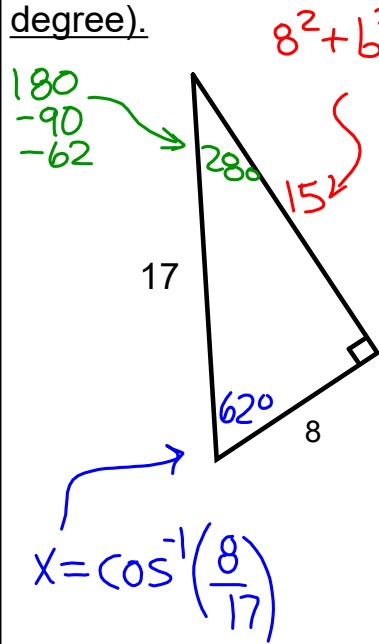
Draw a diagram and solve.



$$4 \cdot 13 = \boxed{52}$$

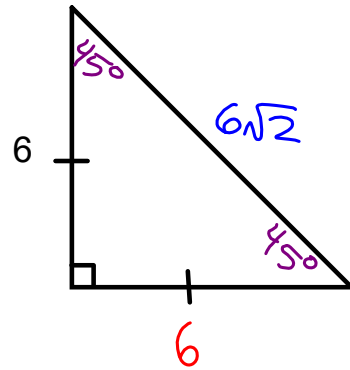
Apr 1-7:52 AM

Ex. Find the missing sides (exact values) AND angles (to the nearest degree).



$8^2 + b^2 = 17^2$
 $b^2 = 225$
 $b = 15$

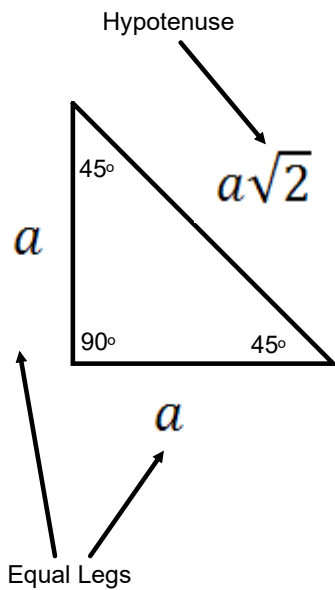
$6^2 + 6^2 = c^2$
 $\sqrt{72} = \sqrt{c^2}$
 $\sqrt{36 \cdot 2} = c$
 $6\sqrt{2} = c$



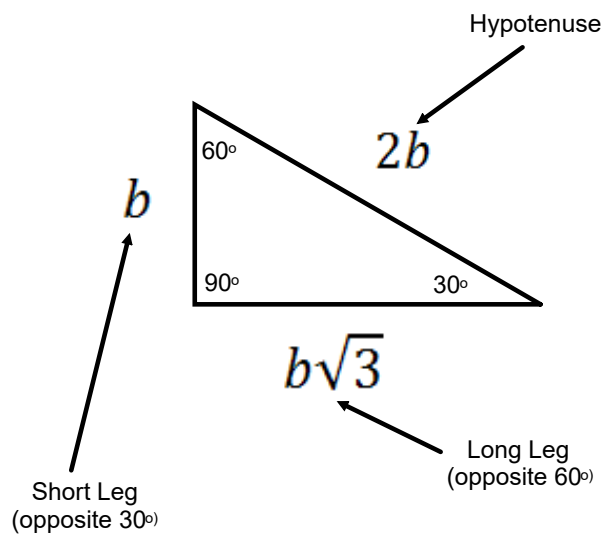
Mar 23-10:05 AM

Pre-Chp. 13 Lesson: Special Right Triangles

45°-45°-90°

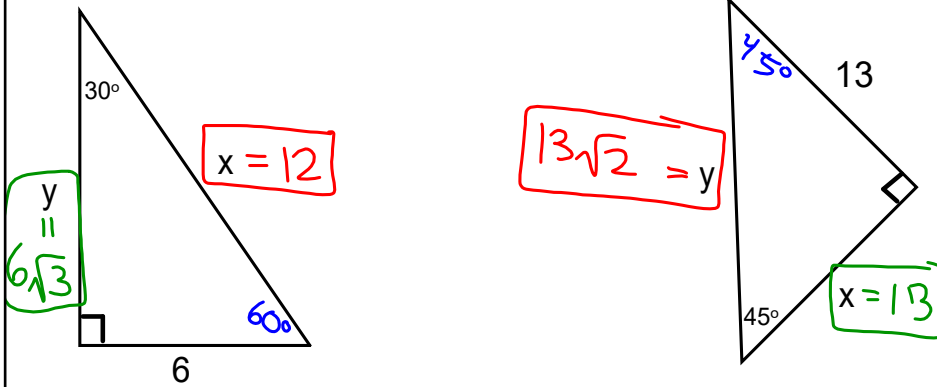


30°-60°-90°



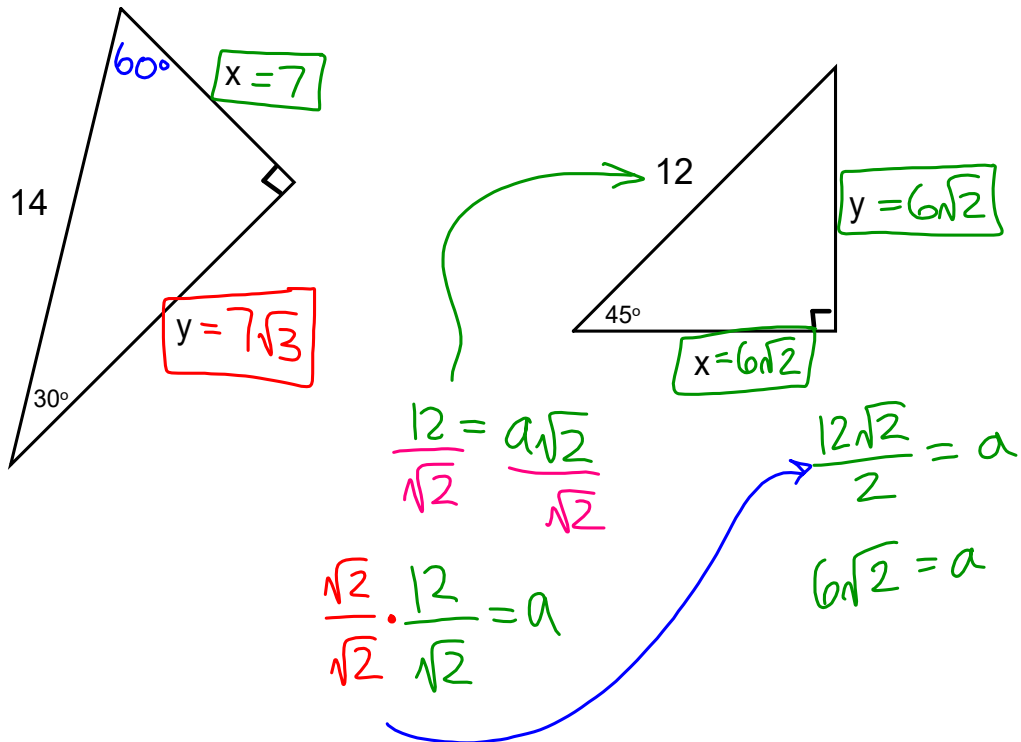
Mar 22-10:37 AM

Ex. Find the missing side lengths. (exact values)



Mar 22-12:00 PM

Ex. Find the missing side lengths. (exact values)



Mar 23-9:44 AM

Ex. Find the missing side lengths. (exact values)

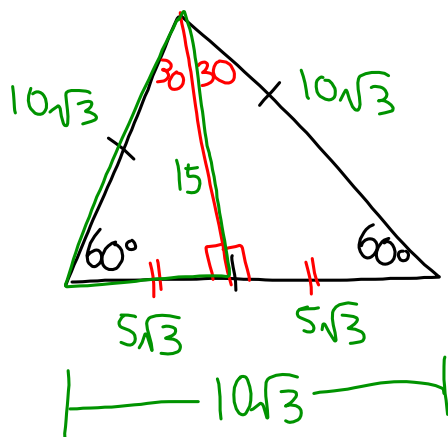
$6\sqrt{3} = x$
 long leg 18
 60°
 30°
 $y = 12\sqrt{3}$

$18 = b\sqrt{3}$
 $\frac{\sqrt{3}}{\sqrt{3}} \cdot \frac{18}{\sqrt{3}} = b$
 $\frac{18\sqrt{3}}{3} = b$
 $6\sqrt{3} = b$

$8\sqrt{2} = z$
 60°
 $w = 8$
 16
 45°
 30°
 $y = 8$
 $x = 8\sqrt{3}$

Mar 23-9:50 AM

Ex. The length of an **altitude** of an equilateral triangle is 15 cm. Find the perimeter of the triangle. *Draw a diagram and solve.*



$P = (10\sqrt{3}) \times 3$
 $P = 30\sqrt{3} \text{ cm}$

Apr 1-7:48 AM