

Tell whether the triangle with the given side lengths is acute, obtuse, or right. If a triangle can not be formed write not possible.

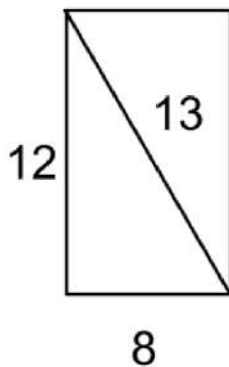
1. 17, 10, 14

2. $\sqrt{3}$, 5, 6

3. 10, 26, 24

Tell whether or not the parallelogram can be classified as a rectangle

5.



Simplify each Radical

6. $\sqrt{112}$

7. $\sqrt{126}$

8. $\sqrt{325}$

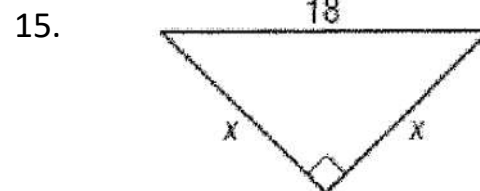
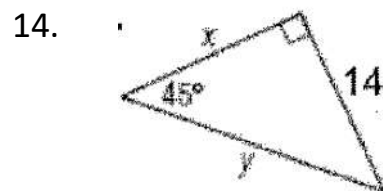
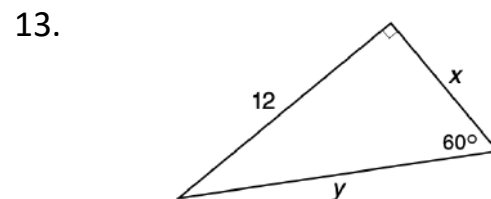
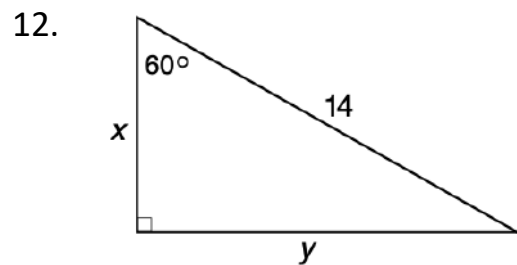
Rationalize each denominator. (Make sure you reduce your fraction when possible)

9. $\frac{5}{\sqrt{7}}$

10. $\frac{4}{\sqrt{6}}$

11. $\frac{3}{\sqrt{18}}$

Find the value of x and y .

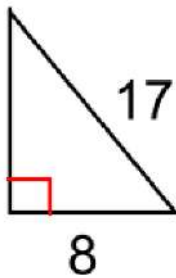


16. The perimeter of a square is 48 cm. Find the length of the diagonal.

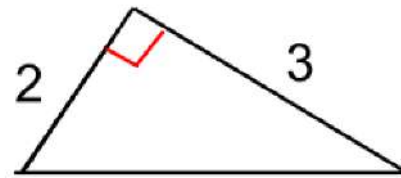
17. The altitude of an equilateral triangle is 24 in. Find the length of a side.

Find the sine, cosine, and tangent for the given angle.

18.

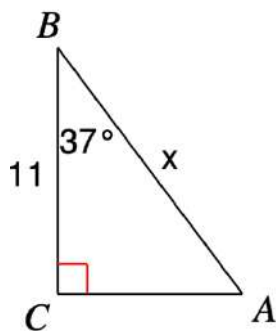


19.

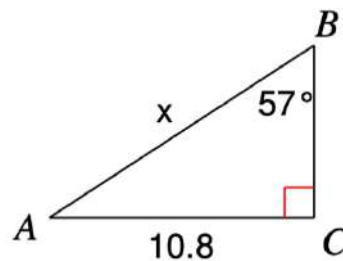


Find the side indicated by the variable. Round to the nearest tenth.

20.



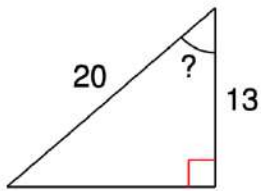
21.



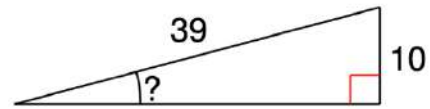
22. You are standing 50 meters from a hot air balloon that is preparing to take off. The angle of elevation to the top of the balloon is 28° . Find the height of the balloon.

Find the measure of the indicated angle to the nearest degree.

23.



24.



25.

A hot air balloon hovers 75 feet above the ground. The balloon is tethered to the ground with a rope that is 125 feet long. At what angle of elevation, E , is the rope attached to the ground? Round your answer to the nearest degree.

