

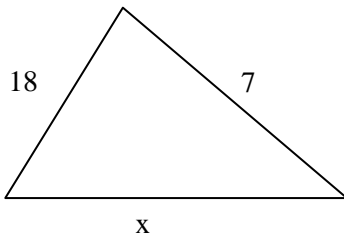
Chapter 5 Review

1. Is it possible to build a triangle with the given side lengths?

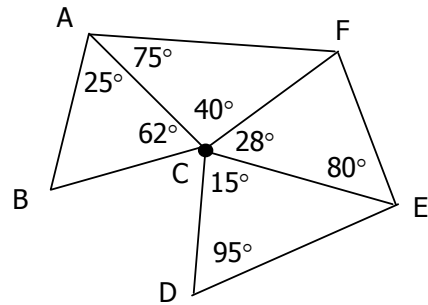
$$ST = \sqrt{29}, TU = 2\sqrt{7}, SU = 13.9$$

2. The hypotenuse of a 30-60-90 triangle is 24. Find the perimeter of the triangle.

3. Find the range of possible values for x:



4. Find the Longest Side.



5. The vertex angle of an isosceles triangle is 120° . The altitude from the vertex is 5 cm long. What is the length of a leg (l) and the base (b) of the triangle?

l = _____

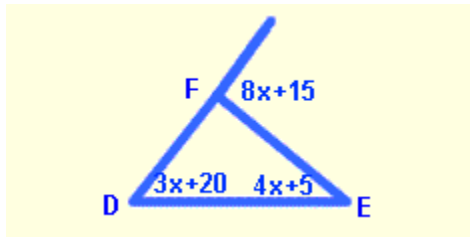
b = _____

6. Universal Sporting Goods sells pennants in the shape of $30^\circ-60^\circ-90^\circ$ triangles. The length of the longest side of each pennant is 16 inches. What is the perimeter of the pennant?

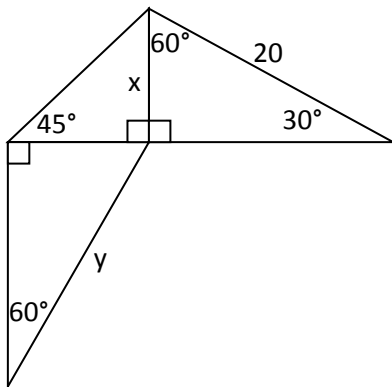
7. Baked pita chips are often in the shape of 45° – 45° – 90° triangles. Caitlyn determines that the longest side of a pita chip in one bag measures 3 centimeters. What is the area of the pita chip?

8. In triangle ABC, $m\angle A = 30^\circ$ and $m\angle B = 50^\circ$. Which is the longest side of the triangle?

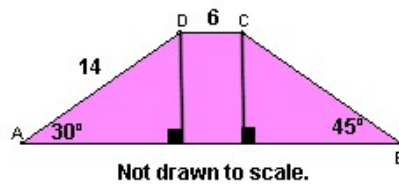
9. Find the value of x .



10. Find the value of x and y .



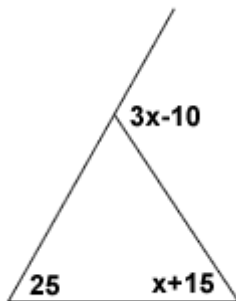
11. The short base is 6 units. Find the number of units in the longer base.



12. Find the value of x and list the sides in order from shortest to longest.

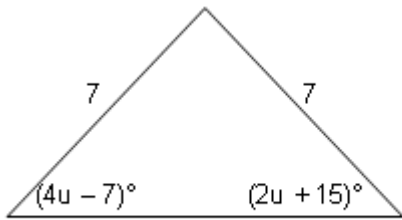
$$m\angle A = (9x+29)^\circ, m\angle B = (93-5x)^\circ \text{ and } m\angle C = (10x+2)^\circ.$$

13. Find x and the measure of the exterior angle shown.

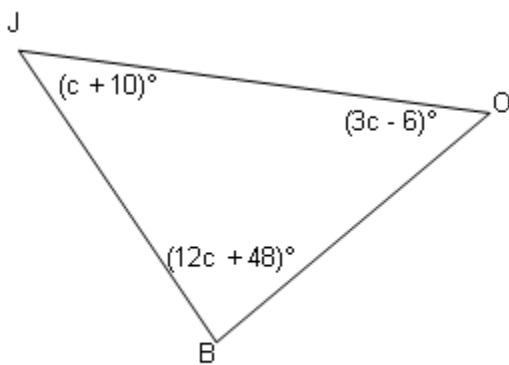


14. A square park has a diagonal walkway from one corner to another. If the walkway is about 38 yards long, what is the length of each side of the park?

15. Find the value of u .



16. Find the value of c and classify the triangle by its angles and sides.



17. A wire is attached to the top of a pole and meets the ground 10 feet from the base of the pole. The wire makes a 45° angle with the ground. Find the height of the pole and the length of the wire.

18. A kite string is 100 feet long from the kite to the ground. The string makes a 45° angle with the ground. About how high off the ground is the kite?