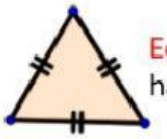
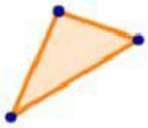
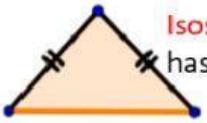
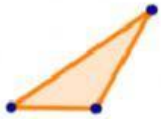
Name _____ Date _____

Types of Triangles

By Side	By Angle
 Equilateral Triangle has three equal sides	 Acute triangle has three angles < 90°
 Isosceles Triangle has two equal sides	Right triangle has one angle = 90°
Scalene Triangle has no equal sides	 Obtuse triangle has one angle > 90°

Use the information in the chart to fill in the blanks.

1) A _____ triangle has no equal sides. All of its sides are different lengths.

2) A _____ triangle has one 90 degree angle. This angle is called a right angle.

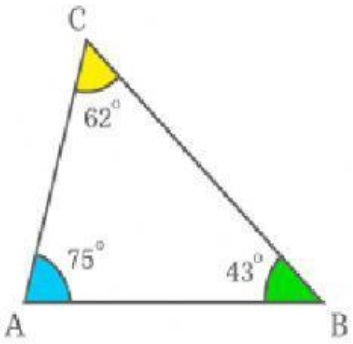
3) An _____ triangle has three angles less than 90 degrees. All of its angles are acute.

4) An _____ triangle has two equal sides. Two of its sides are congruent; the third side is a different length.

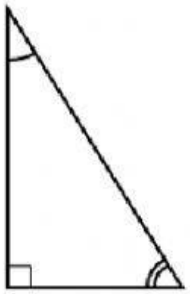
5) An _____ triangle has one angle greater than 90 degrees. This is called an obtuse angle.

6) An _____ triangle has three equal sides. All of its sides are congruent. This means they are the same length.

Label the triangles using the words acute, equilateral, obtuse, right, scalene, or isosceles. Use the information from the chart above.



7)



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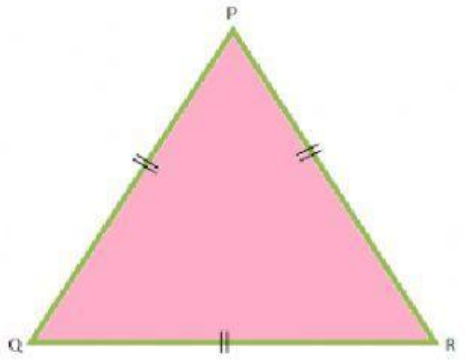

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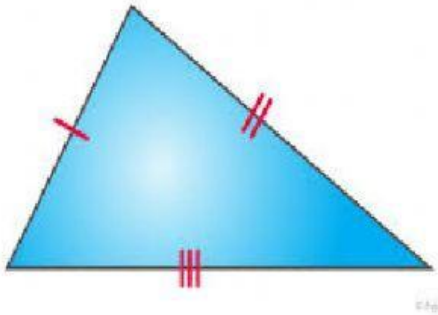

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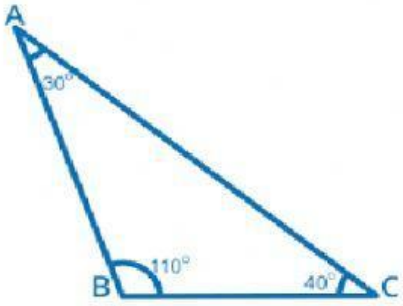
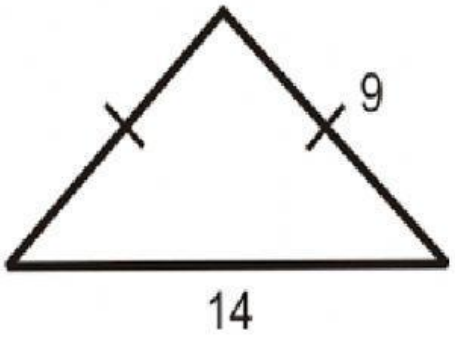


11)



12)

The word "congruent" in Geometry means that figures, sides, or angles have the same measurements. When figures, sides, or angles are congruent, this means they have the SAME length or degree. In Geometry, congruence is shown by matching marks that look like small lines on sides or arcs on angles. If sides or angles have the same lines or arcs they are congruent. If they do not have the same lines or arcs, they are incongruent, which means they have different measurements. Incongruence is shown by different marks. Congruence or incongruence can also be shown by letters, numbers, or other symbols that are the same or different.

13) Congruent means:

a) having different measurements
b) having the same measurements

14) Incongruent means:

a) having the same measurements
b) having different measurements

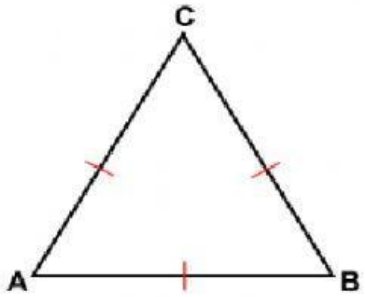
15) Congruent sides and angles will have:

a) the same number of lines or arcs on them
b) different numbers of lines or arcs on them

16) incongruent sides and angles will have:

c) different numbers of lines or arcs on them
d) The same numbers of lines or arcs on them

17) The congruency marks on triangle ABC mean:

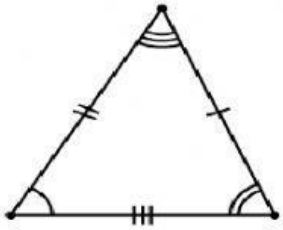


a) all three sides are incongruent
b) just two sides are congruent
c) All three sides are congruent

18) If all three sides are congruent, triangle ABC is a(n) _____ triangle.

a) scalene
b) right
c) equilateral

19) In the triangle below, the congruency marks show that:

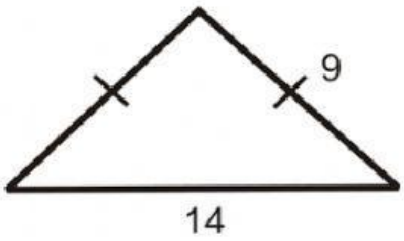


a) all sides and angles are incongruent
b) some sides and angles are congruent
c) all sides and angles are congruent

20) If all three sides and angles are incongruent, it is a(n) _____ triangle.

d) scalene
e) acute
f) obtuse

21) In the triangle below, the right side measure is 9 so the left side measure is:

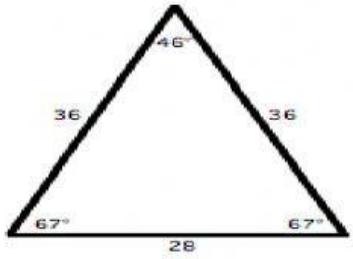


a) also 9
b) 14
c) cannot be determined by the information given

22) Since the triangle above has two congruent sides, it is a(n) _____ triangle.

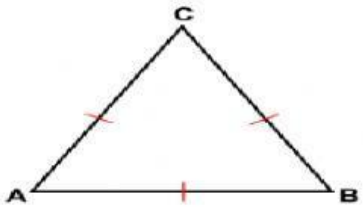
a) equilateral
b) right
c) isosceles

23) In the triangle below, you can tell from the number measurements that:



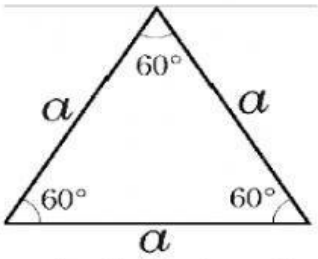
a) all sides and angles are congruent
b) two sides are congruent
c) two angles are congruent
d) both b and c are correct

24) If side AC of the triangle below measures 11 inches then:



a) sides CB and AB do not measure 11 inches
b) sides CB and AB also measure 11 inches
c) cannot be determined from the information given

25) On the triangle below, the letter a is used to represent the measure of the sides instead of congruency marks. Since all sides have the same letter, this means that:



a) all sides have the same measure
b) all sides have different measures
c) cannot be determined from the information given

BONUS: if the measure of left side a is 40 cm, the other sides would be _____.