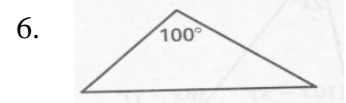
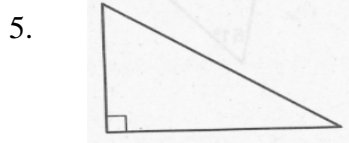
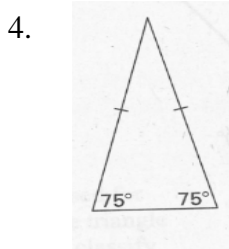
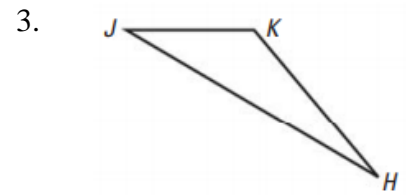
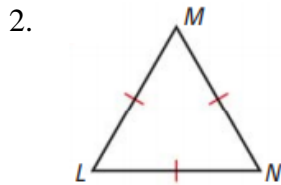
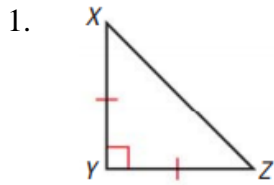
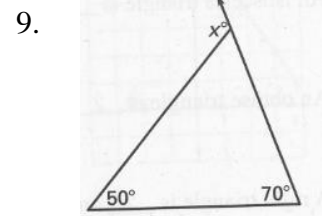
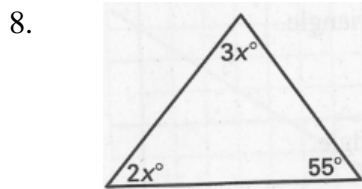
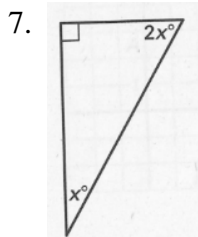


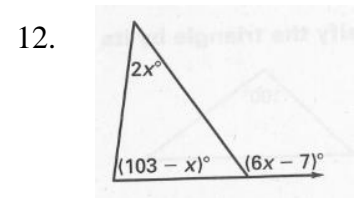
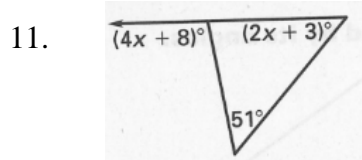
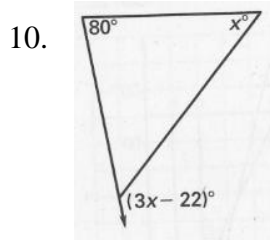
Classify each triangle by its **sides and angles**.



Find the value of  $x$ . Then classify the triangle by its angles.

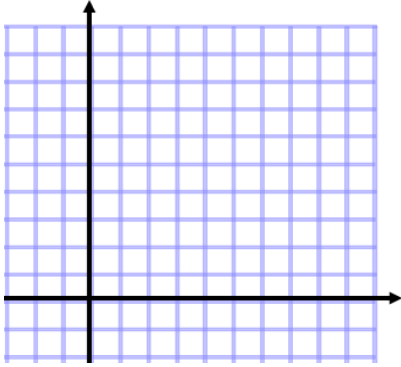


Find the measure of the exterior angle shown.

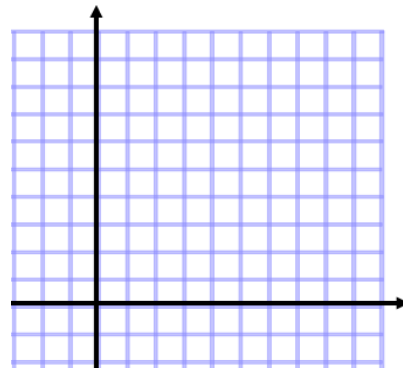


A triangle has the given vertices. **Graph** the triangle and **classify** it by its sides. Then **determine if it is a right triangle**.

13.  $A(1, 1)$ ,  $B(4, 0)$ ,  $C(8, 5)$



14.  $A(2, 2)$ ,  $B(6, 2)$ ,  $C(4, 8)$



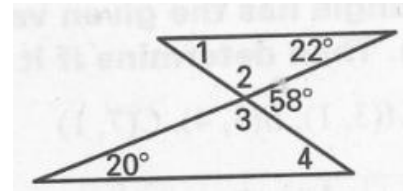
Find the measure of the numbered angle.

15.  $m\angle 1 =$

16.  $m\angle 2 =$

17.  $m\angle 3 =$

18.  $m\angle 4 =$



19. In  $\triangle ABC$ ,  $m\angle A = m\angle B + 30^\circ$  and  $m\angle C = m\angle B + 60^\circ$ . Find the measure of each angle.

20. In  $\triangle EFG$ ,  $m\angle F = 3(m\angle G)$  and  $m\angle E = m\angle F - 30^\circ$ . Find the measure of each angle.

21. Which of the following is not possible?

A. An acute scalene triangle


B. A triangle with two acute exterior angles

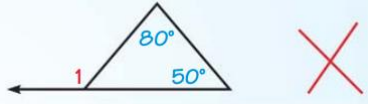
C. An obtuse isosceles triangle

D. An equilateral acute triangle.

22. You are bending a strip of metal into an isosceles triangle for a sculpture. The strip of metal is 20 inches long. The first vend is made 6 inches from one end. Describe **two** ways you could complete the triangle.

**Describe** and **correct** the error.

23. All equilateral triangles are also isosceles. So, if  $\triangle ABC$  is isosceles, then it is equilateral as well. 

24.  $m\angle 1 + 80^\circ + 50^\circ = 180^\circ$   


Complete the sentence with *always*, *sometimes* or *never*.

25. An isosceles triangle is \_\_\_\_\_ a right triangle.
26. An obtuse triangle is \_\_\_\_\_ a right triangle.
27. A right triangle is \_\_\_\_\_ an equilateral triangle.
28. A right triangle is \_\_\_\_\_ an isosceles triangle.

Find the values of  $x$  and  $y$ .

