

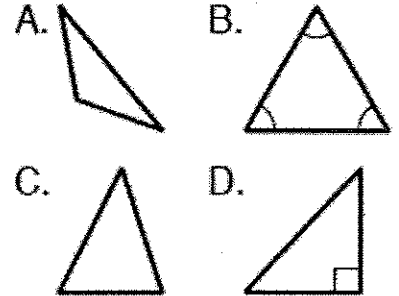
# Identifying Triangles

7<sup>th</sup> Grade Math

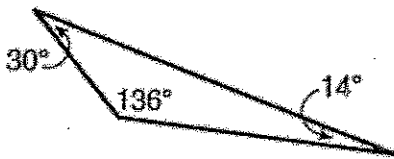
Name: \_\_\_\_\_

Match the letter of the figure to the correct word.

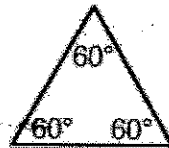
1. right triangle \_\_\_\_\_
2. obtuse triangle \_\_\_\_\_
3. acute triangle \_\_\_\_\_
4. equiangular triangle \_\_\_\_\_



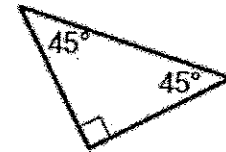
Put letters on the triangles and name them. Then classify the triangles by their angles.



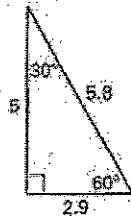
5. \_\_\_\_\_



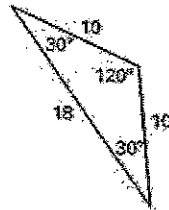
6. \_\_\_\_\_



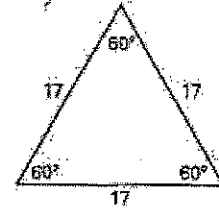
7. \_\_\_\_\_



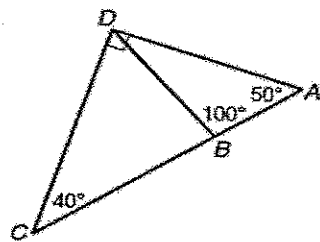
8. \_\_\_\_\_



9. \_\_\_\_\_



10. \_\_\_\_\_



11.  $\triangle ABD$  \_\_\_\_\_

12.  $\triangle ADC$  \_\_\_\_\_

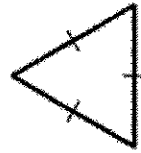
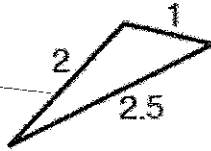
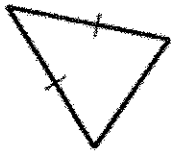
13.  $\triangle BCD$  \_\_\_\_\_

14. An isosceles triangle has \_\_\_\_\_ congruent sides.

15. An \_\_\_\_\_ triangle has three congruent sides.

16. A \_\_\_\_\_ triangle has no congruent sides.

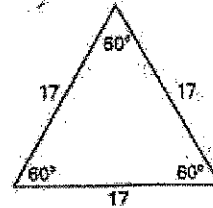
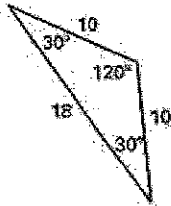
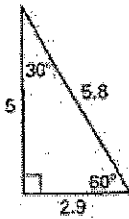
Put letters on the triangles and name them. Then classify the triangles by their sides.



17. \_\_\_\_\_

18. \_\_\_\_\_

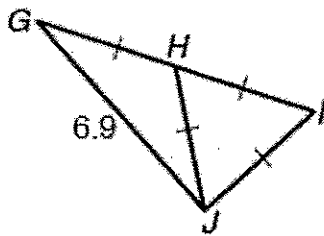
19. \_\_\_\_\_



20. \_\_\_\_\_

21. \_\_\_\_\_

22. \_\_\_\_\_



23.  $\triangle GHJ$  \_\_\_\_\_

24.  $\triangle IHJ$  \_\_\_\_\_

25.  $\triangle GIJ$  \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## "Worksheet: Identifying Types of Triangles"

**PART I:** Match the name of the triangle with the triangle shown.

\_\_\_\_ Isosceles

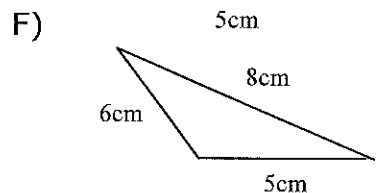
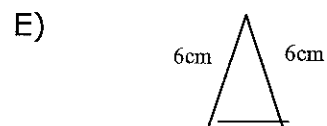
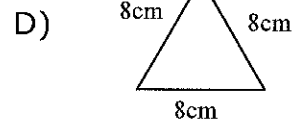
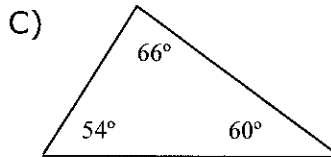
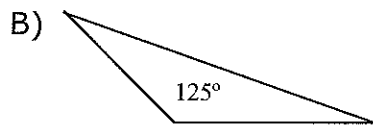
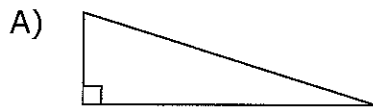
\_\_\_\_ Equilateral

\_\_\_\_ Scalene

\_\_\_\_ Acute

\_\_\_\_ Right

\_\_\_\_ Obtuse



**Part II:** Use the information above to answer the following:

If you were given the measurements of the angles and the sides of the triangles above, what two labels can you give to each triangle below?

Triangle A \_\_\_\_\_

Triangle D \_\_\_\_\_

Triangle E \_\_\_\_\_

Triangle F \_\_\_\_\_

**PART III:** Identify the type of triangle based on the following information

- A triangle with all sides and angles congruent \_\_\_\_\_
- A triangle with no sides congruent \_\_\_\_\_
- A triangle with one angle  $91^\circ$  \_\_\_\_\_
- A triangle with angles  $103^\circ$ ,  $20^\circ$ ,  $57^\circ$  \_\_\_\_\_
- A triangle with sides 11cm, 15cm, 11cm \_\_\_\_\_

**PART IV:** Design a right triangle that is also scalene. Do this design without using a protractor and only with a ruler.

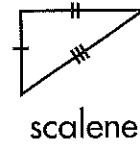
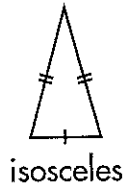
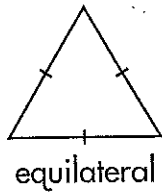
## Lesson 10.7 Triangles (by side)

Triangles can be classified by the number of congruent (equal) sides that they have.

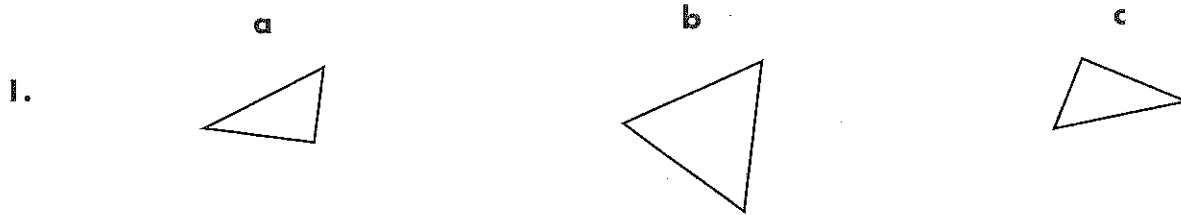
No two sides are congruent in a **scalene triangle**.

At least two sides are congruent in an **isosceles triangle**.

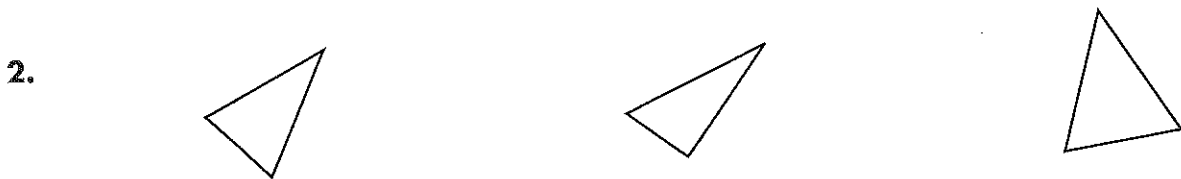
All three sides are congruent in an **equilateral triangle**.



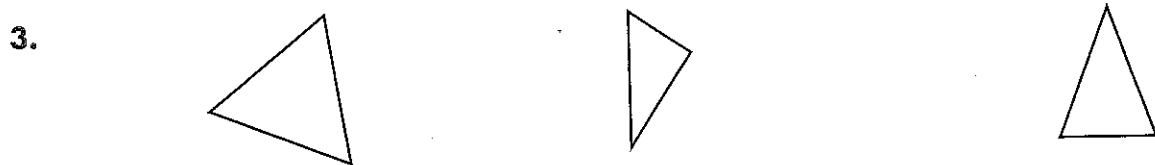
Use a ruler to measure each triangle. Write if it is equilateral, isosceles, or scalene.



\_\_\_\_\_



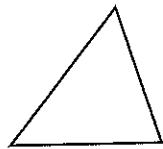
\_\_\_\_\_



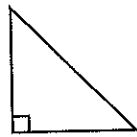
\_\_\_\_\_

# Lesson 10.6 Triangles (by angles)

The sum of the measures of the angles of a triangle is always  $180^\circ$ . Two of the angles are always acute. The triangle can be classified by the measure of the third angle as **right**, **acute**, or **obtuse**.



acute triangle  
All angles are less than  $90^\circ$ .


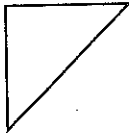
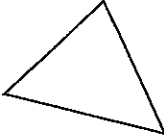
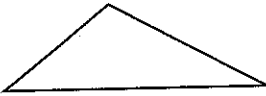

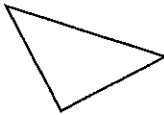
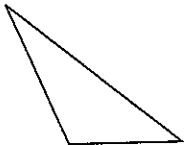

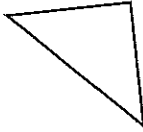
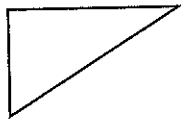
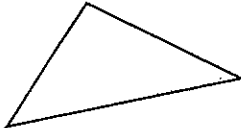



right triangle  
One angle is  $90^\circ$ .



obtuse triangle  
One angle is more than  $90^\circ$ .

Write whether each triangle is acute, right, or obtuse.

	a	b	c
1.			
	_____	_____	_____
2.			
	_____	_____	_____
3.			
	_____	_____	_____
4.			
	_____	_____	_____

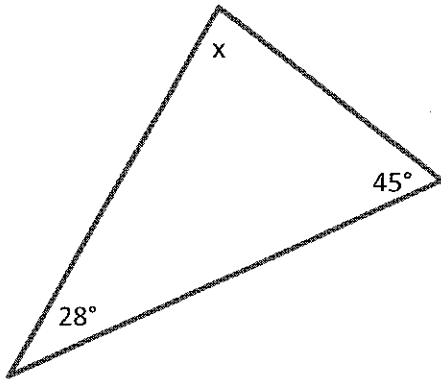
# Triangle Angle Sum Practice

## 7<sup>th</sup> Grade Math

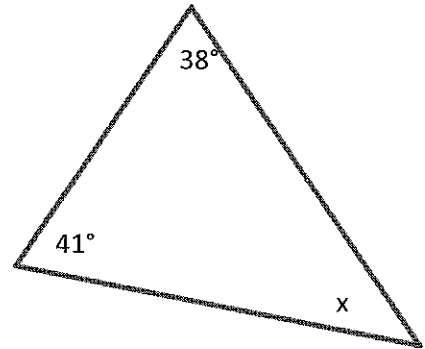
Name: \_\_\_\_\_

Find the missing angle in each triangle below...

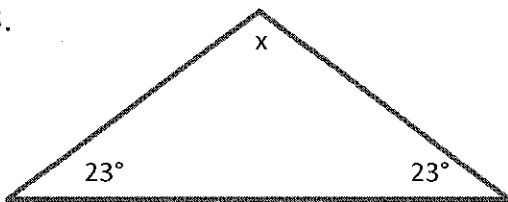
1.



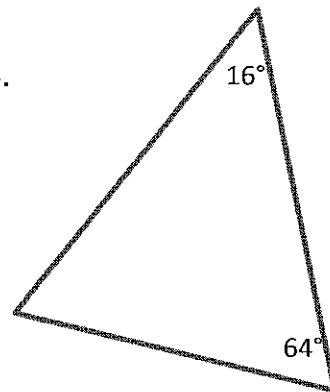
2.



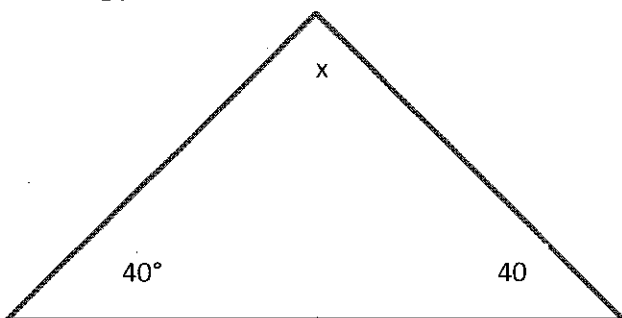
3.



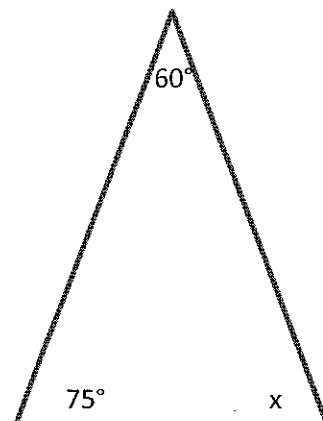
4.



5.

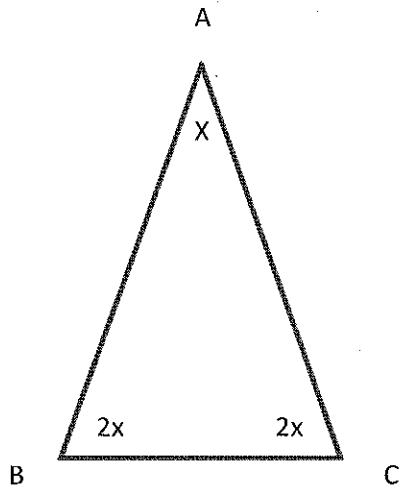


6.



Find all the angles in each of the following...

1.

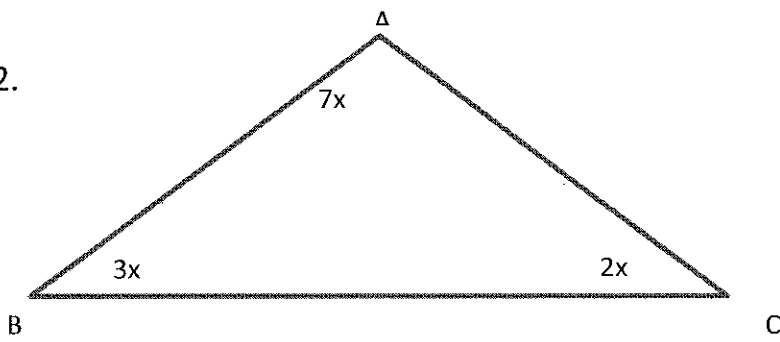


$$\angle A = \underline{\hspace{2cm}}$$

$$\angle B = \underline{\hspace{2cm}}$$

$$\angle C = \underline{\hspace{2cm}}$$

2.

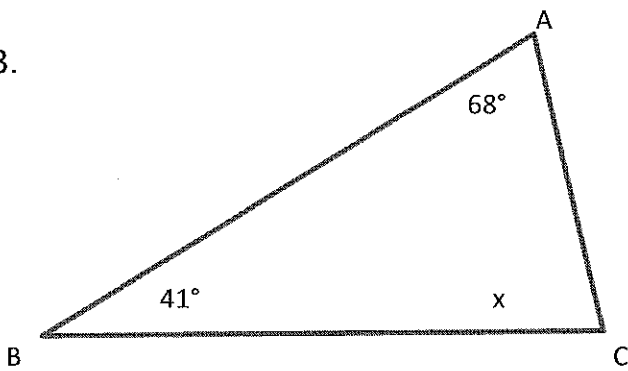


$$\angle A = \underline{\hspace{2cm}}$$

$$\angle B = \underline{\hspace{2cm}}$$

$$\angle C = \underline{\hspace{2cm}}$$

3.



$$\angle A = \underline{\hspace{2cm}}$$

$$\angle B = \underline{\hspace{2cm}}$$

$$\angle C = \underline{\hspace{2cm}}$$

**Triangle Inequality Theorem**- The sum of the lengths of any two sides of a triangle is greater than the length of the third side.

Can these numbers be the length of the sides of a triangle? Show math to prove your answer, using the Triangle Inequality Theorem. Then circle YES or NO.

1. 8, 9, 10

YES NO

2. 1, 1, 2

YES NO

3. 6, 9, 8

YES NO

4. 3, 4, 9

YES NO

5. 12, 4, 17

YES NO

6. 8, 7, 2

YES NO

7. 14, 3, 9

YES NO

8. 12, 18, 2

YES NO

9. 3, 2, 1

YES NO

10. Ralph has a pet rabbit and wants to build a pen for it. He has 3 pieces of lumber: one is 3 ft, one is 7 ft, and the other is 8 ft long. Can he build a closed triangular pen with these three boards (will the boards form a triangle)?



# Drawing a Triangle

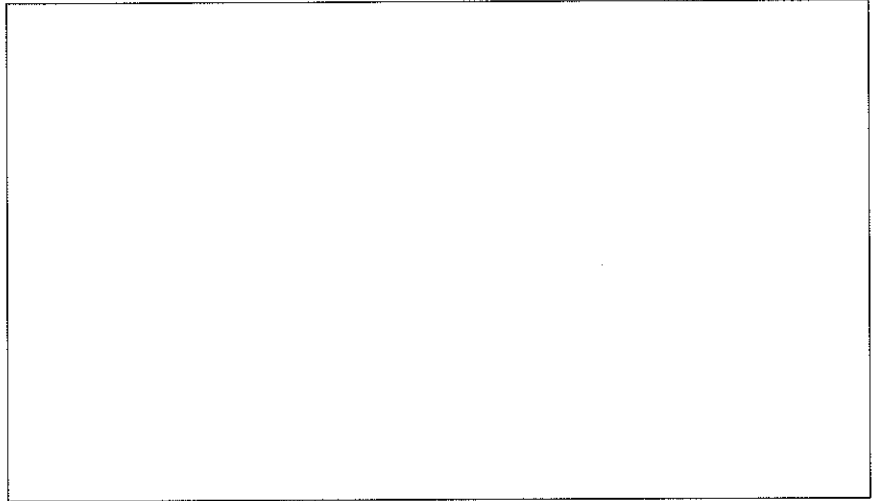
Name: \_\_\_\_\_

## 7<sup>th</sup> Grade Math

Using the following information, draw a triangle.

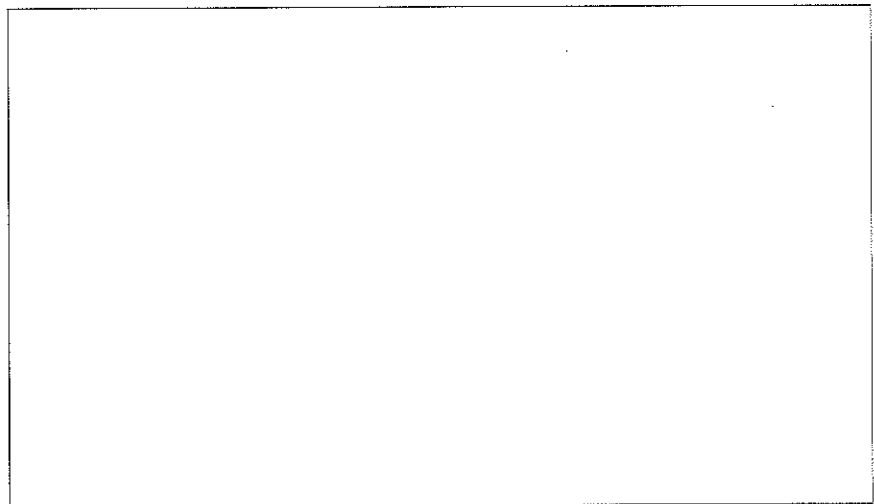
1. A triangle has sides 19, an angle  $50^\circ$  and an angle of  $60^\circ$ .

Triangle



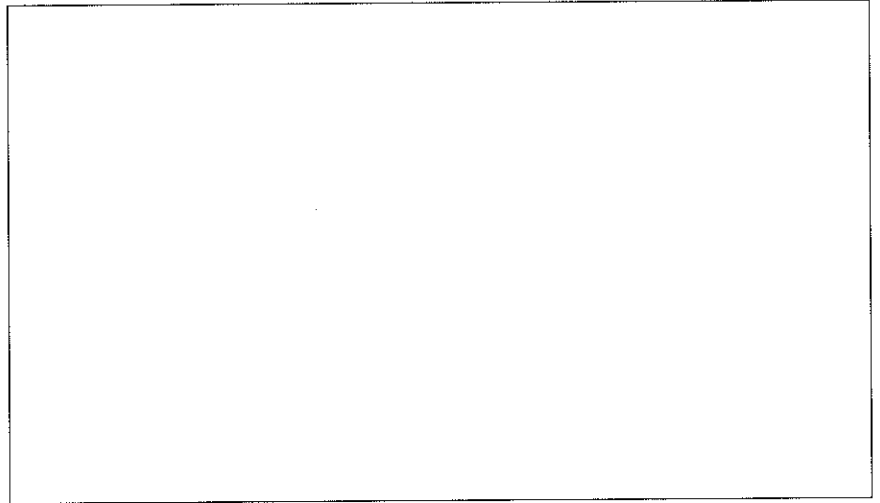
2. A triangle has two sides lengths of 7 cm, 7 cm, and an angle of  $60^\circ$ .

Triangle



3. A triangle has side of 5, angle of  $85^\circ$ , and an angle of  $40^\circ$

Triangle



4. A triangle has two sides lengths of 3 cm, 4 cm, and an angle of  $90^\circ$ .

Triangle

