

Introduction to Geometry: Types of Triangles

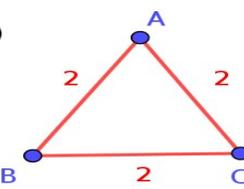
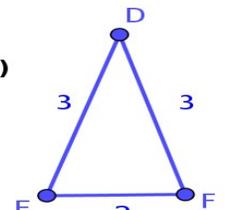
1. With the following side lengths, try and draw triangles. What did you find? Were any triangles difficult to draw? Why?

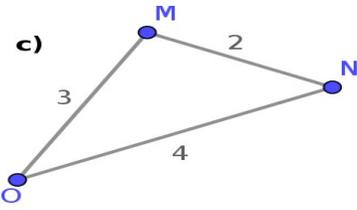
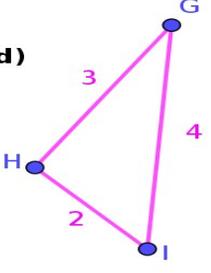
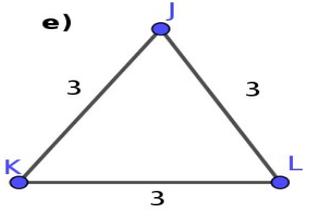
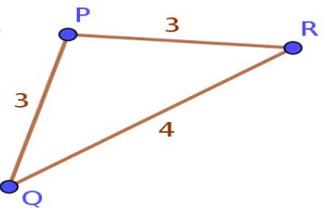
- a) 7 cm, 3 cm, 4 cm.
- b) 10 cm, 12 cm, 8 cm
- c) 5cm, 5cm, 4cm.
- d) 6cm,6cm,6cm.

2. Draw the following triangles and measure and write all angles

- a) 6 cm, 6 cm, 6 cm
- b) 3 cm, 3 cm, 4 cm
- c) 3 cm, 4 cm, 5 cm
- d) 7 cm, 8 cm, 8 cm
- e) 6 cm ,4 cm, 8 cm

3. Read the instructions in the given columns and classify the triangles based on their sides

Triangles with sides marked	Each side different (Scalene)	Two sides are the same (Isoceses)	All three sides are the same (Equilateral)	All angles are different (visually examine and write)	All angles are equal	Two angles are the same
<p>a)</p> 						
<p>b)</p> 						

<p>c)</p> 						
<p>d)</p> 						
<p>e)</p> 						
<p>f)</p> 						

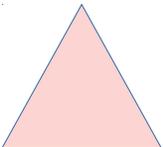
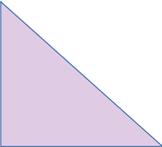
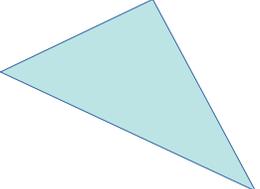
4. Match the following.

i. 3 sides of equal length	a. Scalene
ii. 2 sides of equal length	b. Isosceles right angled
iii. All sides are of different lengths	c. Obtuse angled
iv. 3 acute angles	d. Right angled
v. 1 right angle	e. Equilateral
vi. 1 obtuse angle	f. Acute angled
vii. 1 right angle with two sides of equal length	g. Isosceles

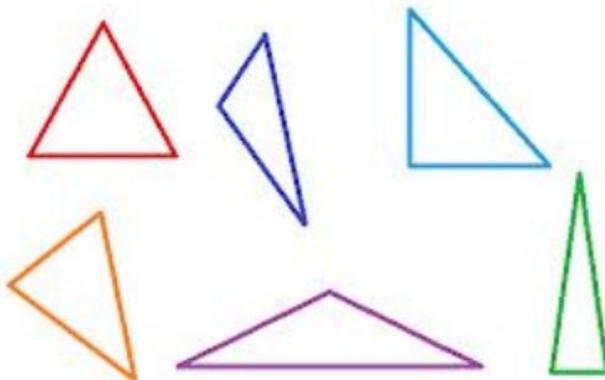
5. Name the type of triangle where:

1. Each angle is less than 90° .
2. One angle is greater than 90°
3. One angle is equal to 90°

6. Tick the boxes that apply to each Triangle

Triangles	Scalene Triangle	Isoceles Triangle	Equilateral Triangle	Right Triangle	Obtuse Triangle	Acute Triangle
						
						
						

7. Name each of the following triangles in two different ways. You may judge the measures of sides and angles or actually measure them.



8. Classify the triangle according to sides, that is Equilateral, Isosceles and Scalene triangles

Sides of the Triangle	Is the triangle possible?	What type of triangle is it (Equilateral/ Isoceles/Scalene)	How many angles will be equal in the triangle
6 cm, 3 cm, 5 cm.			
6 cm, 6 cm, 6 cm.			
7 cm, 7 cm, 5 cm.			
8 cm, 12 cm, 10 cm.			
3 cm, 4 cm, 5 cm.			
3.5 cm, 3.5 cm, 4.5 cm.			

9. Fill the Blanks

- All sides of the triangle are 6.6 cm each -
- Two sides of the triangle are 3 cm – and third side is 4
- Each side of the triangle are 2cm,3cm and 4cm -
- two sides of an Equilateral Triangle are 5.5 cm each, then what will be the measure of third side-.....

10. In the given figure,
(Hint : $EF=EG=FG=2\text{cm}$)

- How many Triangles are there?
- Name all the Triangles and write down the measures of each sides of all Triangles?
- All Triangles of which type?

