



NCERT SOLUTIONS FOR CLASS 6 MATHS
UNDERSTANDING ELEMENTARY SHAPES EX 5.6

Q1. Name the types of following triangles:

(a) Triangle with lengths of sides 7 cm, 8 cm and 9 cm.

(b) $\triangle ABC$ with $AB = 8.7$ cm, $AC = 7$ cm and $BC = 6$ cm.

(c) $\triangle PQR$ such that $PQ = QR = PR = 5$ cm.

(d) $\triangle DEF$ with $m \angle D = 90^\circ$

(e) $\triangle XYZ$ with $m \angle Y = 90^\circ$ and $XY = YZ$

(f) $\triangle LMN$ with $m \angle L = 30^\circ$, $m \angle M = 70^\circ$ and $m \angle N = 80^\circ$.

Ans:

(a) Scalene triangle

(b) Scalene triangle

(c) Equilateral triangle

(d) Right-angled triangle

(e) Isosceles right-angled triangle

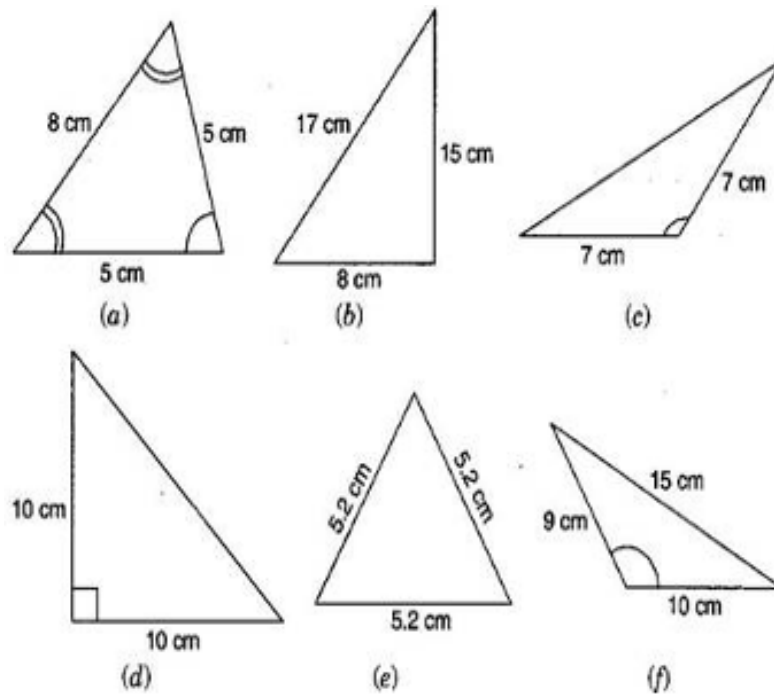
(f) Acute-angled triangle

Q2. Match the following:

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

Ans: (i)→(e), (ii)→(g), (iii)→(a), (iv)→(f), (v)→(d), (vi)→(c), (vii)→(b)

Q3. Name each of the following triangles in two different ways: (You may judge the nature of angle by observation)



Ans:

(a) Acute angled triangle and Isosceles triangle

(b) Right-angled triangle and Scalene triangle

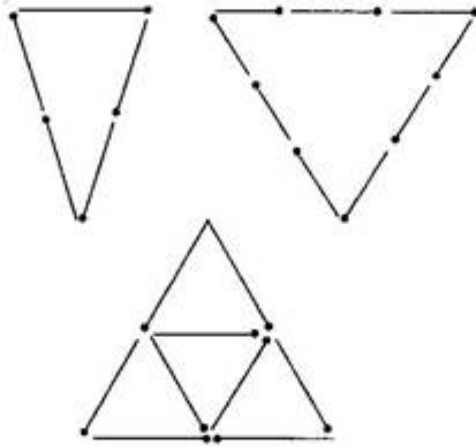
(c) Obtuse-angled triangle and Isosceles triangle

(d) Right-angled triangle and Isosceles triangle

(e) Equilateral triangle and acute angled triangle

(f) Obtuse-angled triangle and scalene triangle

Q4. Try to construct triangles using match sticks. Some are shown here.



Can you make a triangle with:

(a) 3 matchsticks?

(b) 4 matchsticks?

(c) 5 matchsticks?

(d) 6 matchsticks?

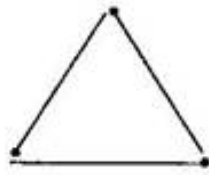
(Remember you have to use all the available matchsticks in each case)

If you cannot make a triangle, think of reasons for it.

Ans:

(a) 3 matchsticks

This is an acute angle triangle and it is possible with 3 matchsticks to make a triangle because sum of two sides is greater than third side.



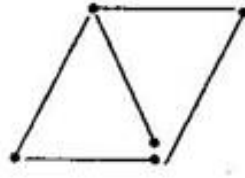
(b) 4 matchsticks

This is a square, hence with four matchsticks we cannot make triangle.



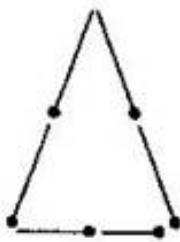
(c) 5 matchsticks

This is an acute angle triangle and it is possible to make triangle with five matchsticks, in this case sum of two sides is greater than third side.



(d) 6 matchsticks

This is an acute angle triangle and it is possible to make a triangle with the help of 6 matchsticks because sum of two sides is greater than third side.



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