

Exercise 5.6

Question 1:

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 $m\angle N = 80^\circ$.

Solution:

The type of the triangle in each case is,

- (a) Scalene triangle
- (b) Scalene triangle
- (c) Equilateral triangle
- (d) Right-angled triangle
- (e) Isosceles right-angled triangle
- (f) Acute-angled triangle

Question 2:

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

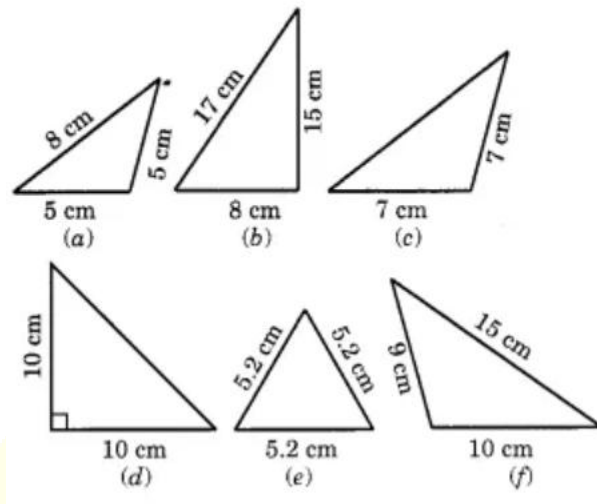
Solution:

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

Question 3:

**NCERT Solutions for Class 6th Maths Chapter 5
Understanding Elementary Shapes**

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

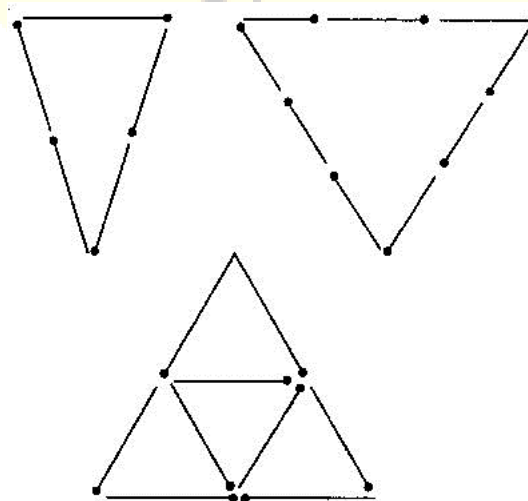


Solution:

- (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

Question 4:

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



**NCERT Solutions for Class 6th Maths Chapter 5
Understanding Elementary Shapes**

Can you make a triangle with:

(a) 3 matchsticks?

(b) 4 matchsticks?

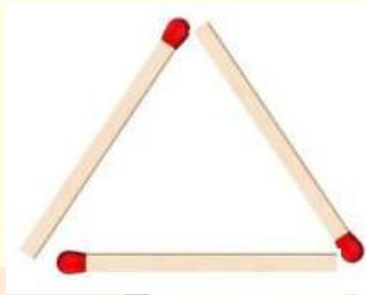
(c) 5 matchsticks?

(d) 6 matchsticks?

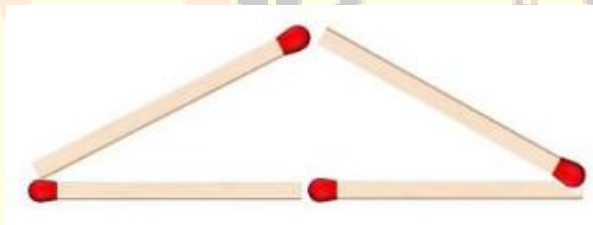
(Remember you have to use all the available matchsticks in each case). If you cannot make a triangle, think of reasons for it.

Solution:

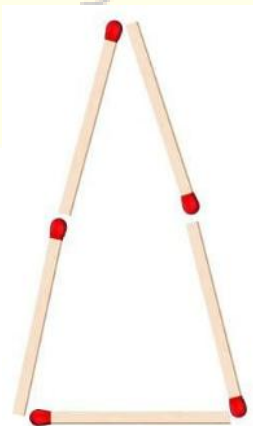
(a) 3 matchsticks – Triangle possible



(b) 4 matchsticks – Triangle not-possible



(c) 5 matchsticks – Triangle Possible



(d) 6 matchsticks – Triangle Possible

NCERT Solutions for Class 6th Maths Chapter 5
Understanding Elementary Shapes

