

# Mathematics

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(Chapter - 11) (Algebra)

(Class - VI)

## Exercise 11.2

### Question 1:

The side of an equilateral triangle is shown by  $l$ . Express the perimeter of the equilateral triangle using  $l$ .

#### Answer 1:

Side of equilateral triangle =  $l$

Therefore, Perimeter of equilateral triangle =  $3 \times \text{side} = 3l$

### Question 2:

The side of a regular hexagon is denoted by  $l$ . Express the perimeter of the hexagon using  $l$ . (Hint: A regular hexagon has all its six sides in length)

#### Answer 2:

Side of hexagon =  $l$

Therefore, Perimeter of Hexagon =  $6 \times \text{side} = 6l$



### Question 3:

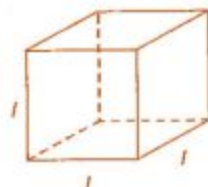
A cube is a three-dimensional figure. It has six faces and all of them are identical squares. The length of an edge of the cube is given by  $l$ . Find the formula for the total length of the edges of a cube.

#### Answer 3:

Length of one edge of cube =  $l$

Number of edges in a cube = 12

Therefore, total length =  $12 \times l = 12l$



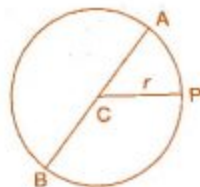
### Question 4:

The diameter of a circle is a line, which joins two points on the circle and also passes through the centre of the circle. (In the adjoining figure AB is a diameter of the circle; C is its centre). Express the diameter of the circle ( $d$ ) in terms of its radius ( $r$ ).

#### Answer 4:

Since, length of diameter is double the length of radius.

Therefore,  $d = 2r$



### Question 5:

To find sum of three numbers 14, 27 and 13. We can have two ways.

(a) We may first add 14 and 27 to get 41 and then add 13 to it to get the total sum 54, or

(b) We may add 27 and 13 to get 40 and then add 14 to get the sum 54. Thus  
 $(14 + 27) + 13 = 14 + (27 + 13)$

This can be done for any three numbers. This property is known as the associativity of addition of numbers. Express this property which we have already studied in the chapter on Whole Numbers, in a general way, by using variables  $a$ ,  $b$  and  $c$ .

#### Answer 5:

$$(a + b) + c = a + (b + c)$$