

# Mathematics

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(Chapter – 12) (Heron's Formula)(Exemplar Problems)

(Class – IX)

## Exercise 12.1

### Question 4:

The area of an equilateral triangle with side  $2\sqrt{3}$  cm is

- (A)  $5.196 \text{ cm}^2$       (B)  $0.866 \text{ cm}^2$       (C)  $3.496 \text{ cm}^2$       (D)  $1.732 \text{ cm}^2$

### Answer 4:

- (A)  $5.196 \text{ cm}^2$

### Solution:

Given, side of an equilateral triangle is  $2\sqrt{3}$  cm

Area of a equilateral triangle

$$= \frac{\sqrt{3}}{4} (\text{Side})^2$$

$$= \frac{\sqrt{3}}{4} (2\sqrt{3})^2$$

$$= \frac{\sqrt{3}}{4} \times 4 \times 3$$

$$= 3\sqrt{3} = 3 \times 1.732 = 5.196 \text{ cm}^2$$

Hence, the area of equilateral triangle is  $5.196 \text{ cm}^2$ .

