

# Mathematics

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(Chapter – 1) (Number Systems)(Exemplar Problems)

(Class – IX)

## Exercise 1.1

Write the correct answer in each of the following:

### Question 15:

The value of  $\frac{\sqrt{32}+\sqrt{48}}{\sqrt{8}+\sqrt{12}}$  is equal to

- (A)  $\sqrt{2}$                       (B) 2                      (C) 4                      (D) 8

### Answer 15:

- (B) 2

Solution:

$$\begin{aligned}\frac{\sqrt{32} + \sqrt{48}}{\sqrt{8} + \sqrt{12}} &= \frac{\sqrt{2 \times 2 \times 8} + \sqrt{2 \times 2 \times 12}}{\sqrt{8} + \sqrt{12}} \\ &= \frac{2\sqrt{8} + 2\sqrt{12}}{\sqrt{8} + \sqrt{12}} = \frac{2(\sqrt{8} + \sqrt{12})}{\sqrt{8} + \sqrt{12}} = 2\end{aligned}$$
