

## Exercise-11 (A)

1 a) i)  $4:6 = \frac{4}{6} = \frac{2}{3} = 2:3$

ii)  $48:54 = \frac{48}{54} = \frac{8}{9} = 8:9$

iii)  $200:250 = \frac{200}{250} = \frac{4}{5} = 4:5$

b i)  $5 \text{ kg} = 5000 \text{ gm}$

$\frac{5000 \text{ gm}}{800 \text{ gm}} = \frac{50}{8} = \frac{25}{4} = 25:4$

ii) ~~30 cm~~  $2 \text{ m} = 200 \text{ cm}$

$\frac{30 \text{ cm}}{200 \text{ cm}} = \frac{3}{20} = 3:20$

iii)  $3 \text{ m} = 300 \text{ cm}$

$\frac{300 \text{ cm}}{90 \text{ cm}} = \frac{30}{9} = \frac{10}{3} = 10:3$

iv)  $2 \text{ years} = 24 \text{ month}$

$\frac{24 \text{ month}}{9 \text{ month}} = 8:3$

v)  $1 \text{ hour} = 60 \text{ min}$

$\frac{60 \text{ min}}{45 \text{ min}} = 4:3$

vi)  $4 \text{ min} = 240 \text{ sec}$

$\frac{240 \text{ sec}}{45 \text{ sec}} = 16:3$

$$c) i) \frac{1}{2} : 2\frac{1}{2} = \frac{1}{2} : \frac{5}{2} = \frac{1}{2} \times \frac{2}{5} = \frac{1}{5}$$

$$ii) 3\frac{1}{2} : 7 = \frac{7}{2} : \frac{7}{1} = \frac{7}{2} \times \frac{1}{7} = \frac{1}{2}$$

$$iii) \frac{7}{3} : \frac{7}{2} : \frac{5}{4} = \frac{7}{3} \times \frac{12}{7} : \frac{7}{2} \times \frac{12}{7} : \frac{5}{4} \times \frac{12}{4} = 28 : 42 : 15$$

$$iv) \frac{x^2}{4x} = \frac{xx}{4x} = \frac{x}{4} = x \cdot \frac{1}{4}$$

$$v) \frac{2.5 \cdot 15}{15} = \frac{2.5 \cdot 5}{3} = 5 : 3$$

$$vi) \frac{2.5}{5.0} = \frac{1}{2}$$

3. i) False

ii) True

iii) True

4. Yes

5. Yes

$$6. 3.5m = \frac{35}{10} \times 100 \text{ cm} = 350 \text{ cm}$$

$$475 \text{ cm}$$

$$2.8m = \frac{28}{10} \times 100 \text{ cm} = 280 \text{ cm}$$

$$350 \text{ cm} : 475 \text{ cm} : 280 \text{ cm} = 70 : 95 : 56$$

$$7 \text{ 1 dozen} = 12$$

$$5 \text{ dozen} = 12 \times 5 = 60$$

$$1 \text{ score} = 20$$

$$2 \text{ scores} = 20 \times 2 = 40$$

$$\text{Ratio} = \frac{60}{40} = \frac{3}{2} = 3:2$$