

8.9.2.1

Ex - 11 (A)

1. (a) (i) 4:6

$$4:6 = \frac{4 \div 2}{6 \div 2} = 2:3$$

(ii) 48:54

$$48:54 = \frac{48 \div 6}{54 \div 6} = 8:9$$

(iii) 200:250

$$200:250 = \frac{200 \div 50}{250 \div 50} = 4:5$$

(b) (i) 5 kg: 800 gm

$$5 \text{ kg} = 5000 \text{ g}$$

$$5000:800 = \frac{5000 \div 200}{800 \div 200} = 25:4$$

(ii) 30 cm: 2 m

$$2 \text{ m} = 200 \text{ cm}$$

$$30:200 = \frac{30 \div 10}{200 \div 10} = 3:20$$

(iii) 3 m: 90 cm

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

$$300:90 = \frac{300 \div 30}{90 \div 30} = 10:3$$

(iv) 2 years: 9 months

$$2 \text{ years} = 24 \text{ months}$$

$$24:9 = \frac{24 \div 3}{9 \div 3} = 8:3$$

(v) 1 hour: 30 min

(vi) 1 hour: 45 min

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

$$60:45 = \frac{60 \div 15}{45 \div 15} = 4:3$$

(vii) 2.5:5

(viii) 4 min: 45 sec

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

$$240:45 = \frac{240 \div 15}{45 \div 15} = 16:3$$



$$(c) (i) \frac{1}{2} : \frac{1}{2} : \frac{1}{2}$$

$$= \frac{3}{2} : \frac{5}{2}$$

$$= \frac{3}{\cancel{2}} \times \frac{\cancel{2}}{5}$$

$$= 3:5$$

$$(ii) \frac{3}{2} : 7$$

$$= \frac{\cancel{7} \times 1}{2} \times \frac{\cancel{2}}{\cancel{7}}$$

$$= 1:2$$

$$(iii) \frac{2}{3} : \frac{3}{2} : \frac{1}{4}$$

$$= \frac{7}{3} : \frac{7}{2} : \frac{5}{4}$$

$$= \frac{7 \times 12}{3} : \frac{7 \times 12}{2} : \frac{5 \times 12}{4}$$

$$= 28 : 42 : 15$$

~~iii~~

$$(iv) x^2 : 4x$$

$$\frac{x^2}{4x} = \frac{\cancel{x} \times \cancel{x}}{4 \times \cancel{x}} = x:4$$

$$(v) 2.5 : 1.5$$

$$= \frac{2.5}{1.5} = \frac{\cancel{25} 5}{\cancel{15} 3} = 5:3$$

$$(vi) 2.5 : 5$$

$$\frac{2.5}{5} \times \frac{1}{5} = \frac{\cancel{25} 5^1}{5 \times 5} = 1:5$$

2. Width = 60 m

Length = 80 m

$$\text{Ratio} = 60:80 = \frac{60 \div 20}{80 \div 20} = 3:4$$

3. (i) False

(ii) True

(iii) False

4. ~~False~~ Yes

5. Yes

6. 3.5 m, ~~455~~ 475 cm, 2.8 m

= 350 cm; ~~45~~ 475 cm; 280 cm

= 70; 95; 56

7. 5 dozen and ~~1 score~~ 2 scores

$$= 60:40 = \frac{60 \div 20}{40 \div 20} = 3:2$$