

(Exercise 11.A)

①

a.i) $4:6$

$$\text{Required ratio} = \frac{2}{3} = 2:3$$

ii) $48:54$

$$\text{Required ratio} = \frac{8}{9} = 8:9$$

iii) $200:250$

$$\text{Required ratio} = \frac{4}{5} = 4:5$$

b.i) $5\text{kg}:800\text{gm}$ = Since, $5\text{kg} = 5 \times 1000\text{gm} = 5000\text{gm}$

$$\frac{5\text{kg}}{800\text{gm}} = \frac{5000\text{gm}}{800\text{gm}} = \frac{25}{4} = 25:4$$

150
545

$$ii) 30 \text{ cm} : 2 \text{ m}$$

$$1 \text{ m} = 100 \text{ cm}$$

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

$$iii) 3 \text{ m} : 90 \text{ cm}$$

$$1 \text{ m} = 100 \text{ cm} = 3 \times 100 = 300 \text{ cm}$$

$$\frac{300 \text{ cm}}{90 \text{ cm}} = 5 = 5:3$$

$$iv) 2 \text{ years} : 9 \text{ months}$$

$$1 \text{ year} = 365 \text{ days}$$

$$2 \text{ year} = 2 \times 365 = 730 \text{ days}$$

$$\frac{730}{243} = 3:3$$

$$v) 1 \text{ hour} : 43 \text{ min}$$

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

$$= \frac{60}{43} = 60:43$$

$$vi) 4 \text{ min} : 45 \text{ sec.}$$

$$1 \text{ min} = 60 \text{ sec} \times 4 = 240 \text{ sec.}$$

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

$$c) i) \frac{1}{2} : 2 \frac{1}{2} = 3:5$$

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

$$iii) 28:42:15$$

$$iv) \frac{\pi^2}{4\pi} = \frac{\pi \times \pi}{4 \times \pi} \\ = \pi:4$$

$$v) \frac{25^5}{15^3} = 5:3$$

$$vi) \frac{25^{\frac{5}{2}}}{50^{\frac{5}{2}}} = 1:2$$

2. 80m long 60m wide

$$\frac{80^{16}}{60^{12}}$$

3) i) False

ii) True

iii) True

4) 15:35

$$\frac{15^3}{35^7} = 3:7 \text{ Yes}$$

5) Yes

6) $3.5 : 475 : 2.8$

~~$350 : 475 : 280$~~

$70 : 95 : 56$

7) 5 dozen : 2 score

$60 : 40$

$3 : 2$