

Exercise 11 (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) $5\text{kg}:800\text{g} = 5000\text{g}:800\text{g} = \frac{5000}{800} = \frac{50}{8} = \frac{25}{4} = 25:4$

ii) $30\text{cm}:2\text{m}$
 $= 30\text{cm}:200\text{cm}$
 $= \frac{30}{200} = \frac{3}{20}$

iii) $3\text{m}:90\text{cm}$
 $= 300\text{cm}:90\text{cm}$
 $= \frac{300}{90} = \frac{10}{3}$

iv) $2\text{years}:9\text{months}$
 $= 24\text{months}:9\text{months} = \frac{24}{9} = \frac{8}{3} = 8:3$

v) $1\text{hour}:45\text{min}$
 $= 60\text{min}:45\text{min} = \frac{60}{45} = \frac{4}{3} = 4:3$

vi) $4\text{min}:45\text{sec}$
 $= 240\text{sec}:45\text{sec}$
 $= \frac{240}{45} = \frac{16}{3} = 16:3$

vii) ~~$1\frac{1}{2}:2\frac{1}{2}$~~

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

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

~~iii) $2\frac{1}{2} : 3\frac{1}{3} : 1\frac{1}{4} = \frac{\frac{5}{2}}{\frac{10}{3}} = \frac{5 \cdot 3}{2 \cdot 10} = \frac{15}{20} = \frac{3}{4}$~~

iv) $x^2 : 4x = \frac{x^{2-1}}{4x} = \frac{x}{4} = x:4$

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

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

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

$= 28 : 42 : 15$

v) ~~$2:4$~~ $2.5 : 1.5$

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

vi) $2.5 : 5 = \frac{2.5}{5} = \frac{25}{50} = \frac{1}{2} = 1:2$

2. length = 80m length
width = 60m width.

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

- 3. i) false
- ii) true
- iii) true

4. $15:35 = \frac{15}{35} = \frac{3}{7} = 3:7$

$6:14 = \frac{6}{14} = \frac{3}{7} = 3:7$

Ans- Yes, both ratios are equal.

5. ~~6:15~~ $6:15 = \frac{6}{15} = \frac{2}{5} = 2:5$

$36:90 = \frac{36}{90} = \frac{2}{5} = 2:5$

Ans- Yes, both ratios are equal.

6. ~~3.5m:475:2.8~~ $3.5m:475cm:2.8m$
 $= 350:475:280 = 70:95:56$

7. Dozen = $12 \times 5 = 60$

2 scores = $2 \times 20 = 40$

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

cc