

Important Questions for CBSE Class 6 Maths Chapter 12 – Ratio and Proportion

Ch-12 Ratio and Proportion

1. Divide Rs 60 in the ratio 1 : 2 between Kirti and Kamal.
 1. Kirti = Rs 40, Kamal = Rs 20
 2. Kirti = Rs 60, Kamal = Rs 30
 3. Kirti = Rs 20, Kamal = Rs 40
 4. Kirti = Rs 30, Kamal = Rs 60
2. Three terms a, b, c are said to be in proportion if _____ .
 1. $a:b = b:c$
 2. $b:a = c:a$
 3. $a:b = c:b$
 4. $c:a = a:b$
3. Find the ratio of 50 paise to Re 1?
 1. it is 1:3
 2. it is 1:2
 3. it is 2:1
 4. None of these
4. The 30 : 45 is equivalent ratio of
 1. it is 1:3
 2. it is 2:3
 3. it is 1:2
 4. it is 3:2
5. Ravi and Rani started a business and invested money in the ratio 2 : 3. After one year the total profit was Rs 40,000. What is the share of Ravi in profit?
 1. Rs 15000
 2. Rs 24000
 3. Rs 16000
 4. Rs 20000

6. Match the following:

Column A	Column B
a. A ratio equivalent to 3 : 7	p. 3 : 1
b. Simplest form of 21 : 7 is	q. 30 : 24
c. 5 : 4 is equal to	r. 9 : 21
d. Ratio of 35 : 15 is	s. 7 : 3

7. Fill In The Blanks.

1. If 4, a, a, 36 are in proportion then a is equal to ____.
2. 32 m : 64 m :: ____.
3. 5 : 4 = ____.
4. If $a = 2b$ then $a : b =$ ____.

8. State whether the following statements are True or False:

1. A ratio equivalent to 3 : 7 is 9 : 21.
 2. The ratio 35 : 84 in simplest form is 7 : 12.
 3. A ratio can be equal to 1.
 4. $5 : 2 = 2 : 5$.
9. Find X in the proportion $X : 6 = 25 : 5$
10. The weight of 25 copies is 5 kg. Find the weight of 30 such copies?
11. Are the following statement true? $45\text{km} : 60\text{km} = 12\text{ hours} : 15\text{ hours}$.
12. Write True or False against the following statement : $8 : 9 :: 24 : 27$.
13. Are the following statement true? $7.5\text{litre} : 15\text{litre} = 5\text{kg} : 10\text{kg}$.
14. Write True or False against the following statement: $5.2 : 3.9 :: 3 : 4$.
15. If $2A = 3B = 4C$, find $A : B : C$

Answer

1.

c. Kirti = Rs 20, Kamal = Rs 40

Explanation: ratio = 1 : 2

$\therefore$ the total parts is $1+2=3$ so kriti's share =

$13 \times 60 = 603 = 60 \div 33 \div 3 = 201 = 20$ Rs kamal's share
 $= 23 \times 60 = 1203 = 120 \div 33 \div 3 = 401 = 40$ Rs

2.

a. $a:b = b:c$

Explanation: Three terms(a ,b and c) are said to be in proportion if the ratio of the first and the second is equal to the ratio of the second and third.

$a:b=b:c$

3.

b. it is 1:2

Explanation:

Re 1 $\Rightarrow$ 100 paisa

ratio = 50 paisa : Re 1 = $50:100 =$

$50:100 = 50 \div 50 : 100 \div 50 = 1:2$

4.

b. it is 2:3

Explanation: $30:45$ $30 \div 15 : 45 \div 15 = 2:3$

5.

c. (c) Rs 16000

Explanation: sol : given ratio of ravi and rani 2:3 , total part is $2+3=5$

and given profit is 40000 ravi share in

profit = $25 \times 40000 = 800000$ $800000 \div 5 = \text{Rs} 160000$

6.

1. $\rightarrow \rightarrow r$

2. $\rightarrow \rightarrow p$

3. $\rightarrow \rightarrow q$

4. $\rightarrow \rightarrow s$

7.

1. 12

2. 6secs : 12sec

3. 30 : 24

4. 2 : 1

8.

1. True

2. False

3. True

4. False

9. $X:6 = 25:5$

$\Rightarrow X \times 6 = 25 \times 5 \Rightarrow X \times 6 = 125$

$\Rightarrow X \times 6 = 125 \Rightarrow X = 125 \div 6$ (Dividing 125 by 6)

$\Rightarrow X = 20 \times 6 = 120 \Rightarrow X = 20 \times 6 = 120$

$\Rightarrow X = 120 \Rightarrow X = 120$

10. It is given that

Weight of 25 copies = 5 kg

$\therefore$ Weight of 1 copy = $5 \div 25 = 1/5$ kg

$\therefore$ Weight of 30 copies = $30 \times 1/5 = 6$ kg

$$11. 45\text{km} : 60\text{km} = 45/60 = 3/4 \quad 60/45 = 4/3 \quad 45/60 = 3/4 \quad \therefore \text{H.C.F.}(45, 60) = 15]$$

$$= 3/4 = 3 : 4$$

$$12 \text{ hours} : 15 \text{ hours} = 12/15 = 4/5 \quad 15/12 = 5/4 \quad 12/15 = 4/5 \quad \therefore \text{H.C.F.}(12, 15) = 3] = 4/5 = 4 : 5$$

Since, the two ratios are not equal, therefore the given statement is false(F).

$$12. 24 : 27 = 24/27 = 8/9 \quad 27/24 = 9/8 \quad 24/27 = 8/9 \quad \therefore \text{H.C.F.}(24, 27) = 3] = 8/9 = 8 : 9$$

$$\therefore 8 : 9 = 24 : 27$$

$\therefore 8 : 9 :: 24 : 27$ is true(T).

$$13. 7.5 \text{ litre} : 15 \text{ litre}$$

$$= 7.5/15 = 1/2 \quad 15/7.5 = 2/1 \quad 7.5/15 = 1/2 \quad \therefore \text{H.C.F.}(7.5, 15) = 7.5] = 1/2 = 1 : 2$$

$$\therefore \text{H.C.F.}(7.5, 15) = 7.5] = 1/2 = 1 : 2$$

$$5\text{kg} : 10\text{kg} = 5/10 = 1/2 \quad 10/5 = 2/1 \quad 5/10 = 1/2 \quad \therefore \text{H.C.F.}(5, 10) = 5] = 1/2 = 1 : 2$$

Since, the two ratios are equal, therefore, the given statement is true (T).

$$14. 5.2 : 3.9$$

$$= 5.2/3.9 = 52/39 \quad 3.9/5.2 = 39/52 \quad 5.2/3.9 = 52/39 \quad \therefore \text{H.C.F.}(52, 39) = 13] = 4/3 = 4 : 3$$

$$\therefore \text{H.C.F.}(52, 39) = 13] = 4/3 = 4 : 3$$

$$\therefore 4 : 3 \neq 3 : 4$$

$\therefore 5.2 : 3.9 :: 3 : 4$ is false (F).

$$15. \text{Let } 2A = 3B = 4C = x$$

$$\text{So, } A = x/2, B = x/3, C = x/4 \quad A = x/2, B = x/3, C = x/4$$

The L.C.M of 2, 3 and 4 is 12

Therefore, A:B:C

$$= x/2 \times 12 : x/3 \times 12 : x/4 \times 12 = 6x : 4x : 3x = 6 : 4 : 3 = x/2 \times 12 : x/3 \times 12 : x/4 \times 12 = 6x : 4x : 3x = 6 : 4 : 3$$

Therefore A:B:C = 6:4:3.