

CHAPTER-3 | Proportional Reasoning-2

QUIZ
PART-01

1. A proportional relationship means related quantities change by the:

- A. Different factor
 - B. Same factor
 - C. Random factor
 - D. Zero factor
- (B)

Explanation: Quantities are proportional when they change by the same factor.

2. The ratio 6 : 3 in simplest form is:

- A. 1 : 2
 - B. 2 : 1
 - C. 3 : 1
 - D. 6 : 1
- (B)

Explanation: Dividing both terms by 3 gives 2 : 1.

3. The ratio 4 : 2 in simplest form is:

- A. 2 : 1
 - B. 1 : 2
 - C. 4 : 1
 - D. 1 : 4
- (A)

Explanation: Dividing both terms by 2 gives 2 : 1.

4. Are the ratios 6 : 3 and 4 : 2 proportional?

- A. Yes
 - B. No
 - C. Sometimes
 - D. Cannot say
- (A)

Explanation: Both ratios simplify to 2 : 1, so they are proportional.

5. Two ratios $a : b$ and $c : d$ are proportional if:

- A. $a + d = b + c$
 - B. $a \times d = b \times c$
 - C. $a - d = b - c$
 - D. $a \div d = b \div c$
- (B)

Explanation: Two ratios are proportional when their cross-products are equal.

6. In the proportion $14 : 21 :: 6 : x$, the value of x is:

- A. 13
 - B. 4
 - C. 9
 - D. None of the above
- (C)

Explanation: $14/21 = 6/x$, so $14x = 126$ and $x = 9$.

7. The ratio of 90 cm to 1.5 m is:

- A. 5 : 3
 - B. 3 : 5
 - C. 60 : 1
 - D. 4 : 3
- (B)

Explanation: 1.5 m = 150 cm, so $90 : 150 = 3 : 5$.

8. If two mixtures have the same ratio of ingredients, their taste will be:

- A. Same
 - B. Always different
 - C. Bitter
 - D. Cannot compare
- (A)

Explanation: If ingredients are mixed in the same ratio and cooked the same way, the taste remains the same.

9. Viswanath used 6 cups rice and 3 cups urad dal. The rice to dal ratio is:

- A. 1 : 2
 - B. 2 : 1
 - C. 3 : 2
 - D. 6 : 1
- (B)

Explanation: 6 : 3 simplifies to 2 : 1.

10. Puneet used 4 cups rice and 2 cups urad dal. This ratio is proportional to:

- A. 6 : 3
 - B. 3 : 6
 - C. 2 : 4
 - D. 1 : 4
- (A)

Explanation: 4 : 2 and 6 : 3 both simplify to 2 : 1.