



DIRECT AND INVERSE VARIATION

Q1. Both x and y vary inversely with each other. When x is 10, y is 6, which of the following is not a possible pair of corresponding values of x and y ?

- (a) 12 and 5
- (b) 15 and 4
- (c) 25 and 2.4
- (d) 45 and 1.3

Q2. Assuming land to be uniformly fertile, the area of land and the yield on it vary

- (a) directly with each other
- (b) inversely with each other
- (c) neither directly nor inversely with each other
- (d) sometimes directly and sometimes inversely with each other

Q3. A truck needs 54 litres of diesel for covering a distance of 297 km. The diesel required by the truck to cover a distance of 550 km is :

- (a) 100 litres
- (b) 50 litres
- (c) 25.16 litres
- (d) 25 litres

Q4. By travelling at a speed of 48 km/h, a car can finish a certain journey in 10 hours. To cover the same distance in 8 hours, the speed of the car should be

- (a) 60 km/h
- (b) 80 km/h
- (c) 30 km/h
- (d) 40 km/h

Q5. Which of the following vary inversely with each other?

- (a) Speed and distance covered
- (b) Distance covered and taxi fare
- (c) Distance travelled and time taken
- (d) Speed and time taken

Q6. Meenakshee cycles to her school at an average speed of 12 km/h and takes 20 minutes to reach her school. If she wants to reach her school in 12 minutes, her average speed should be :

- (a) $20/3$ km/h
- (b) 16 km/h

- (c) 20 km/h.
- (d) 15 km/h

Q7. 100 persons had food provision for 24 days. If 20 persons left the place, the provision will last for

- (a) 30 days
- (b) $96/5$ days
- (c) 120 days
- (d) 40 days

Q8. If two quantities x and y vary directly with each other, then

- (a) xy remains constant
- (b) $x - y$ remains constant
- (c) $x + y$ remains constant
- (d) x/y remains constant

Q9. If the distance travelled by a rickshaw in one hour is 10 km, then the distance travelled by the same rickshaw with the same speed in one minute is

- (a) $250/9$ m
- (b) $500/9$ m
- (c) 1000m
- (d) $500/3$ m

Q10. Both x and y vary directly with each other and when x is 10, y is 14, which of the following is not a possible pair of corresponding values of x and y ?

- (a) 25 and 35
- (b) 35 and 25
- (c) 35 and 49
- (d) 15 and 21