AMITY INTERNATIONAL SCHOOL, VASUNDHARA SECTOR 6
MATHEMATICS – VIII (2021-2022)

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

LIVEWORKSHEETS

(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

LIVEWORKSHEETS