



INDIAN SCHOOL AL WADI AL KABIR

Class VIII, Mathematics (2024-25)

Worksheet DTQ – DIRECT & INVERSE PROPORTION

SHORT ANSWER TYPE QUESTIONS- 8 QUESTIONS. (2 Marks each)

- Q1.** If x and y vary directly. $x=16$, when $y=20$. When $x=28$ find the value of y .
- Q2.** Anu has painted a 40m^2 wall and she has used 8 pots of red paint. Jim wants to paint a 25m^2 wall. How many pots of paint does he need?
- Q3.** 6 pipes are required to fill a tank in 1 hour 20 minutes. If we use 5 such types of pipes, how much time it will take to fill the tank?
- Q4.** If the thickness of 500 sheets of paper is 3.5cm, then what would be the thickness of 275 sheets of paper?
- Q5.** Check whether x and y are in direct proportion. If yes, find the constant of proportion,
- | | | | | | |
|-----|----|----|----|----|----|
| x | 3 | 5 | 7 | 8 | 12 |
| y | 18 | 30 | 42 | 48 | 72 |
- Q6.** Shalu cycles to her school at an average speed of 12km/hr . It takes her 20 minutes to reach the school. If she wants to reach her school in 15 minutes What should be her average speed?
- Q7.** For every five days work, Birender gets two days of holidays. If he works for 20 days, how many days of holidays he can enjoy?
- Q8.** A van is travelling at a speed of 55km/hr . How far will it travel in $2\frac{1}{5}$ hours?

SHORT ANSWER TYPE- 4 QUESTIONS. (3 Marks each)

- Q9.** Arati purchased 24 packets of crayons for ₹ 432. How many packets of the same crayons can be purchased for ₹ 270?
- Q10.** An electric pole, 14 m high, casts a shadow of 10 m. Find the height of a tree that casts a shadow of 15 m under similar conditions also find the length of the shadow cast by the 63 m high building under similar conditions.
- Q11.** If 15 workers can build a wall in 48 hours. How many more workers will be required to do the same work in 30 hours?
- Q12.** 68 boxes of certain commodity require a shelf length of 13.6m. How many boxes of the same commodity would occupy a shelf length of 20.4 m

LONG ANSWER TYPE- 3 QUESTIONS. (4 Marks each)

- Q.13** The hostel of a college having 320 students has a stock of food for 60days.
- (1) If 20 students leave the hostel, in how many days will the food last?
- (2) If the stock of food last for 48 days, how many students are there in the hostel?

Q14.	Assume that the railway fare is directly proportional to the distance of the journey. The table shows distance and the fare. Find the missing values.				
	Distance in Km	200	600	b	840
	Fare in ₹	250	a	900	c
					1200
Q15.	A man earns ₹ 800 for 4 days of work. (a) How much will be his salary be for the month of January? (b) if he took 12 days of leave in October, how much should he paid for that month?				

ANSWERS					
Q1.	35	Q2.	5 pots	Q3.	1 hr. 36 minutes
Q4.	1.925 cm	Q5.	Yes, $k = \frac{1}{6}$	Q6.	16km/hr.
Q7.	8 days	Q8.	11 km	Q9.	15
Q10.	1. 21m 2. 45m	Q11.	9 workers more	Q12.	102
Q13.	1. 64 days 2. 400 students	Q14.	a=750, b=720, c=1210 d= 960	Q15.	1. ₹6200 2. ₹3800
