

*The City School*

North Nazimabad Boys Campus

Blog Worksheet

Mathematics

Grade 7

Proportion

- Q1. The weight of a piece of wire is directly proportional to its length. A piece of wire is 25 cm long and has a weight of 6 grams. Another piece of the same wire is 30 cm long. Calculate the weight of the 30 cm piece of wire.
- Q2.  $p$  is inversely proportional to  $m$ .  $p = 48$  when  $m = 9$ . Calculate the value of  $p$  when  $m = 12$ .
- Q3. The cost of a circular table is directly proportional to the square of the radius. A circular table with a radius of 40cm cost £50. What is the cost of a circular table with a radius of 60cm?
- Q4. The time taken,  $t$  seconds, that it takes a water heater to boil water is inversely proportional to the power,  $p$  watts, of the water heater. When  $P = 2000W$ ,  $T = 252$  seconds. Find the time it takes to boil water when  $P = 800W$ .
- Q5. It takes 4 men 6 hours to repair a road. How long will it take 8 men to do the job if they work at the same rate?
- Q6. If 20 men can build a wall 56 metres long in 6-days. What length of a similar wall can be built by 35 men in 3 days?
- Q7. A garrison of 500 men had provisions for 24 days. However, a reinforcement of 300 men arrived. How many days the food will now last for?
- Q8. 12 men, working 8 hours a day, complete a piece of work in 10 days. To complete the same work in 8 days, working 15 hours a day, the number of men required, is .....