

Inverse Variation Bell Work

Solve problem involving Inverse Variation.

Given that $y \propto \frac{1}{x}$. Calculate the constant of variation in each case then fill in the missing values.

1.

X	10	25			1
Y	5		10	20	

2.

X	8	24		16	
Y	6		12		1

3. If y is inversely proportional to x, and y = 24 when x = 6, find y when x = 8.

4. If y varies inversely as x, and y = 24 when x = 8, find x when y = 10.

5. If M varies inversely as N, and M = 2 when N = 5. Find the constant of variation.

6. If y varies inversely as (x-3), and y = 5 when x = 7, find y when x = 5.

7. Fifteen men can complete a job in 6 days. How many extra men will be required if the job is completed in 5 days?

Name: _____ Period: _____ Date: _____

Inverse Variation Bell Work

8. When travelling at 60 km/h, a car takes 2 hours to go from city A to city B. If a second car traveling at 40 km/ h, how long would it take to go from city A to B?

9. Five boy scouts are going on a camping trip and they have bought enough food for 6 days. If one extra Boy Scout joins then for a trip, how long will the food will last?

10. The time required to empty a tank varies inversely as the rate r of pumping. If a pump can empty a tank in 45 min at the rate of 600 kilometers per minute (kl/min), how long will it take the pump to empty the same tank at the rate of 1000 kl/min?