

Quiz 9

The quantity V varies directly with quantity t and inversely with quantity P . When $P = 2$ and $t = 4$, $V = 12$. What is the value of V when $t = 5$ and $P = 3$? Solution. The model is $V = \frac{kt}{P}$. The given information can be used to find k : $k = \frac{VP}{t} = \frac{12 \cdot 2}{4} = 6$. Therefore, $V = \frac{6t}{P} = \frac{6 \cdot 5}{3} = 10$.