Direct and Inverse Variations Ex 10.1 Q6

Answer :

Since it is a direct variation, $\frac{x}{y} = k$.

For $x = 3$ and $y = 12$, we have :

$k = \frac{3}{12} = \frac{1}{4}$

Thus, in all cases, $k = \frac{1}{4}$

Direct and Inverse Variations Ex 10.1 Q7

Answer :

Let the cost of 7 registers be Rs x.

Register	12	7
Cost(in Rs.)	156	x

If he buys less number of registers, the cost will also be less.
Therefore, it is a direct variation.
We get :

$12 : 7 = 156 : x$

$\Rightarrow \frac{12}{7} = \frac{156}{x}$

Applying cross muliplication, we get :

$x = \frac{156 \times 7}{12}$

$= 91$

Thus, the cost of 7 such registers will be Rs 91.

Direct and Inverse Variations Ex 10.1 Q8

Answer :

Let the distance travelled in 315 minutes be x km.

Time (in minute)	125	315
Distance(in metre)	100	x

If the distance travelled is more, the time needed to cover it will also be more.
Therefore, it is a direct variation.
We get :

$125 : 315 = 100 : x$

$\Rightarrow \frac{125}{315} = \frac{100}{x}$

Applying cross muliplication, we get :

$x = \frac{100 \times 315}{125}$

$= 252$

Thus, Anupama would cover 252 metre in 315 minutes.

Direct and Inverse Variations Ex 10.1 Q9

Answer :

Length of plastic sheet (in metre)	93	105
Cost (in Rs)	1395	x

Let the cost of the plastic sheet per metre be Rs x.

If more sheets are bought, the cost will also be more.

Therefore, it is a direct variation.

We get :

$93 : 105 = 1395 : x$

$\Rightarrow \frac{93}{105} = \frac{1395}{x}$

Applying cross muliplication, we get :

$x = \frac{105 \times 1395}{93}$

$= 1575$

Thus, the required cost will be Rs $1,575$.

Direct and Inverse Variations Ex 10.1 Q10

Answer :

Number of words	1080	x
Time (in minute)	60	1

Let x be her GWAM.

If the time taken is less, GWAM will also be less.

Therefore, it is a direct variation.

$1080 : x = 60 : 1$

$\Rightarrow \frac{1080}{x} = \frac{60}{1}$

Applying cross muliplication, we get :

$x = \frac{1080 \times 1}{60}$

$= 18$

Thus, her GWAM will be 18.

********** END **********