

#1

Pioneers are buying mules to trek across the country. Each of the 5 wagons require e mules to pull them. Write the equation to express the relationship between the total mules  $d$  they need to pull and all the wagons, e.g.  $x=1y$ .

Show your work

#2

Jacob sells strawberries out of the back of his van. In order to predict the required stock write a formula to relate the number of strawberries lost  $o$  to the hour  $p$  if he sells 10 per hour. e.g.  $x=1y$

Show your work

#3

## Choose the best answer

You want to sell your horse figurine collection of  $l$  figurines for \$5 each. Write an equation to show the relationship between the total money made  $k$  and the price of figurines, e.g.  $x=1y$ .

$k=-l5$

$l=k5$

$k=5l$

$l=-5k$

Show your work

#4

## Choose the best answer

Farmer Elizabeth's total chicken flock  $f$  is decreasing. She loses 8 per week. Write a formula to represent the relationship between the total number of chickens and the number of weeks  $g$ . e.g.  $x=1y$

$g=f8$

$f=-8g$

$f=-g8$

$g=-8f$

Show your work

#5

## Choose the best answer

The International Space Station (ISS) relies on solar panels and batteries for its power. When the ISS is in the shadow of the Earth, the battery drains at a rate of 9 power units per hour. Find the formula to relate the number of hours  $g$  to the amount of power loss  $f$ . e.g.  $x=1y$

$g=9f$

$f=-9g$

$g=-f9$

$f=-g9$

Show your work

#6

## Choose the best answer

The city produces 5 jobs every year  $x$ . Write an equation to show the relationship between how many jobs are produced each year, and the total number of jobs  $w$ , e.g.  $x=1y$ .

$w=5x$

$x=-w5$

$w=-x5$

$x=-5w$

Show your work

#7

## Choose the best answer

Farmer Alexa needs to figure out how many total cattle  $o$  she will have next year. She counts her cattle  $p$  and knows each will produce 10 calves each year. Write an equation that shows this relationship and can be used to calculate how many cattle Alexa will have next year, e.g.  $x=1y$ .

- $o=p10$                         $p=10o$
- $o=10p$                         $p=-o10$

Show your work

#8

The city produces 5 jobs every year  $e$ . Write an equation to show the relationship between how many jobs are produced each year, and the total number of jobs  $d$ , e.g.  $x=1y$ .

Show your work

#9

The International Space Station (ISS) relies on solar panels and batteries for its power. When the ISS is in the shadow of the Earth, the battery drains at a rate of 7 power units per hour. Find the formula to relate the number of hours  $n$  to the amount of power loss  $m$ . e.g.  $x=1y$

Show your work

#10

Brayden makes \$7 an hour. Write an equation that shows the relationship between the money made  $r$  and the hours worked  $s$ , e.g.  $x=1y$ .

Show your work

#11

Pioneers are buying mules to trek across the country. Each of the 10 wagons require  $b$  mules to pull them. Write the equation to express the relationship between the total mules  $a$  they need to pull and all the wagons, e.g.  $x=1y$ .

Show your work

#12

## Choose the best answer

Sarahtown is going through an economic downturn and jobs are being lost at a rate of 10 per month. As the mayor of Sarahtown, write a formula to relate the number of months  $j$  to the number of jobs lost  $i$ . e.g.

$$x=1y$$

- $i=-j10$                         $j=-10i$
- $i=-10j$                         $j=-i10$

Show your work

Question	Answer
#1	$d=5e$
#2	$o=-10p$
#3	choice 3
#4	choice 2
#5	choice 2
#6	choice 1
#7	choice 3
#8	$d=5e$
#9	$m=-7n$
#10	$r=7s$
#11	$a=10b$
#12	choice 3