

#1

## Choose the best answer

Farmer Austin's total chicken flock  $p$  is decreasing. He loses 9 per week. Write a formula to represent the relationship between the total number of chickens and the number of weeks  $q$ . e.g.  $x=1y$

- $p=-9q$                         $q=-p9$
- $q=-9p$                         $p=-q9$

Show your work

#2

## Choose the best answer

The city produces 10 jobs every year  $d$ . Write an equation to show the relationship between how many jobs are produced each year, and the total number of jobs  $c$ , e.g.  $x=1y$ .

- $c=d10$                         $d=-c10$
- $d=-10c$                         $c=10d$

Show your work

#3

## 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

#4

## 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

#5

## Choose the best answer

You are taking your grain to market tomorrow and have  $g$  bushels of wheat, and each bushel sells for \$8. Write an equation that shows the relationship between the total worth  $f$ , and the number of bushels, e.g.  $x=1y$ .

- $f=8g$                         $g=-f8$
- $f=g8$                         $g=-8f$

Show your work

#6

Out at Camp Alexander the squirrels like to sneak and steal sunflower seeds out of the birdfeeder at a rate 10 per hour. Write a formula to find the number seeds lost  $q$  related to the hour  $r$ . e.g.  $x=1y$

Show your work

#7

Since starting a new recycling plan, Kevin's office recycles 10 kilograms of paper each week. Write an equation that shows the relationship between the weeks  $n$  and the paper recycled  $m$ , e.g.  $x=1y$ .

Show your work

#8

Farmer Hannah has a supply of hay to feed the cows everyday. Write a formula to relate the hay lost  $r$  and the number of days  $s$  if the cows eat 7 bails of hay per day. e.g.  $x=1y$

Show your work

#9

## Choose the best answer

Farmer Ashley has a supply of hay to feed the cows everyday. Write a formula to relate the hay lost  $f$  and the number of days  $g$  if the cows eat 5 bails of hay per day. e.g.  $x=1y$

- $f = -5g$                         $g = f5$   
  $g = -5f$                         $f = g5$

Show your work

#10

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

Show your work

#11

## Choose the best answer

Ryan wants to make a unicorn hair wig, but a unicorn only sheds 3 hairs a day. Write an equation to show the relationship between days  $i$  and the total unicorn hairs shed  $h$ , e.g.  $x=1y$ .

- $i=-3h$                         $h=3i$   
  $i=h3$                           $h=-i3$

Show your work

#12

## Choose the best answer

A plumber makes \$8 an hour, and wants to calculate how much money she will make in  $v$  hours. Write an equation to show the relationship between the money made per hour and the total money made  $u$ , e.g.  $x=1y$ .

- $v=8u$                           $v=u8$   
  $u=-v8$                          $u=8v$

Show your work

Question	Answer
#1	choice 1
#2	choice 4
#3	choice 2
#4	choice 1
#5	choice 1
#6	$q = -10r$
#7	$m = 10n$
#8	$r = -7s$
#9	choice 1
#10	$b = 5c$
#11	choice 2
#12	choice 4