

#1

Choose the best answer

The city produces 9 jobs every year l . Write an equation to show the relationship between how many jobs are produced each year, and the total number of jobs k if they have to reserve 8 jobs for employment equity e.g. $y=1x+1$

- $9l=8k$ $k=9l - 8$
- $k=-8l + 9$ $8l=9 + k$

Show your work

#2

Pioneers are buying mules to trek across the country. Each of the 4 wagons require y mules to pull them. Write the equation to express the relationship between the total mules x they need to pull all the wagons if they need 3 spare mules. e.g. $y=1x+1$

Show your work

#3

Choose the best answer

Hannah sells strawberries out of the back of her van. In order to predict the required stock write a formula to relate the number of strawberries lost v to the hour w if she sells 3 per hour but has to throw out 2 moldy ones. e.g. $y=1x+5$

- $v=-3w - 2$ $3w=2v$
- $v=2w - 3$ $2w=-3 + v$

Show your work

#4

Choose the best answer

Kaylee sells strawberries out of the back of her van. In order to predict the required stock, write a formula to relate the number of strawberries lost v to the hour w if she sells 8 per hour and finds 5 in the back of the fridge. e.g. $y=1x+5$

- $v=-5w+8$ $v=-8w+5$
- $5w=8+v$ $8w=5v$

Show your work

#5

You are taking your grain to market tomorrow and have c bushels of wheat, and each bushel sells for \$2. Write an equation that shows the relationship between the total worth b , and the number of bushels if you also get a \$9 flat rate. e.g. $y=1x+1$

Show your work

#6

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 10 power units per hour. Find the formula to relate the number of hours f to the amount of power loss e if the ISS loses 7 power units from a short circuit. e.g. $y=1x+5$

- $10f=-7e$ $e=-10f-7$
- $e=-7f+10$ $7f=10-e$

Show your work

#7

Choose the best answer

Austin makes \$14 an hour. Write an equation that shows the relationship between the money made x and the hours worked y if Austin makes a flat rate of \$10. e.g. $y=1x+1$

- $10y = -14 + x$ $x = 14y + 10$
- $x = 10y - 14$ $14y = 10x$

Show your work

#8

Choose the best answer

Gabriel wants a formula to figure out how far he went on his run. He will need the total distance b , and how many blocks he ran c . If a block is 2 meters, write the equation he needs if Gabriel first ran 5 meters. e.g. $y=1x+1$

- $b = 2c + 5$ $b = 5c - 2$
- $2c = 5b$ $5c = -2 + b$

Show your work

#9

Sydneytown is going through an economic downturn and jobs are being lost at a rate of 9 per month. As the mayor of Sydneytown, you need to write a formula to relate the number of months t to the number of jobs lost s if there was a one time gain of 5 jobs due to government construction program. e.g. $y=1x+5$

Show your work

#10

Choose the best answer

Out at Camp Jack the squirrels like to sneak and steal sunflower seeds out of the birdfeeder at a rate 14 per hour. Write a formula to find the number seeds lost i related to the hour j if a gust of wind blows 2 seeds out of the feeder. e.g. $y=1x+5$

- $i=-14j-2$ $14j=-2i$
- $i=-2j-14$ $2j=-14-i$

Show your work

#11

Choose the best answer

Farmer Makayla has a supply of hay to feed the cows everyday. Write a formula to relate the hay lost d and the number of days e if the cows eat 10 bails of hay per day and Makayla loses 2 bales due to mold. e.g. $y=1x+5$

- $10e=2d$ $2e=-10+d$
- $d=-2e-10$ $d=-10e-2$

Show your work

#12

Choose the best answer

Farmer Hailey has a supply of hay to feed the cows everyday. Write a formula to relate the hay lost k and the number of days l if the cows eat 16 bails of hay per day and Hailey loses 9 bales due to mold. e.g. $y=1x+5$

- $16l=-9k$ $k=-16l-9$
- $k=9l-16$ $9l=-16-k$

Show your work

Question	Answer
#1	choice 2
#2	$x=4y+3$
#3	choice 1
#4	choice 2
#5	$b=2c+9$
#6	choice 2
#7	choice 2
#8	choice 1
#9	$s=-9t+5$
#10	choice 1
#11	choice 4
#12	choice 2