

#1

Evan makes \$12 an hour but owes a one time fee of \$3 for a uniform purchase. Write an equation that shows the relationship between the money made s and the hours worked t . e.g. $y=1x+1$

Show your work

#2

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 2 power units per hour. Find the formula to relate the number of hours p to the amount of power loss o if the ISS loses 9 power units from a short circuit. e.g. $y=1x+5$

- $o = -2p - 9$ $9p = 2 + o$
- $o = -9p + 2$ $2p = 9o$

Show your work

#3

Choose the best answer

The city produces 6 jobs every year o . Write an equation to show the relationship between how many jobs are produced each year, and the total number of jobs n if there are already 3 available. e.g. $y=1x+1$

- $6o = -3n$ $n = 6o + 3$
- $3o = -6 - n$ $n = -3o - 6$

Show your work

#4

Farmer Addison needs to figure out how many total cattle t she will have next year. She counts her cattle u and knows each will produce 6 calves each year. Write an equation that shows this relationship and can be used to calculate how many cattle Addison will have next year if 1 cow died. e.g. $y=1x+1$

Show your work

#5

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 q to the hour r if she sells 13 per hour and finds 9 in the back of the fridge. e.g. $y=1x+5$

- $q=9r - 13$ $q=-13r + 9$
- $9r=-13 + q$ $13r=9q$

Show your work

#6

Choose the best answer

Farmer Makayla 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 bales of hay per day and Makayla finds 5 bales behind the barn. e.g. $y=1x+5$

- $k=-5l + 16$ $k=-16l + 5$
- $16l=5k$ $5l=16 + k$

Show your work

#7

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 5 power units per hour. Find the formula to relate the number of hours w to the amount of power loss v if the ISS gains 1 power unit from a solar flare. e.g. $y=1x+5$

Show your work

#8

Choose the best answer

A plumber makes \$4 an hour, and wants to calculate how much money she will make in l hours if they have to pay an equipment rental fee of \$10. Write an equation to show the relationship between money made per hour and total money made k . e.g. $y=1x+1$

- $10l = -4 - k$ $k = -10l - 4$
- $k = 4l - 10$ $4l = -10k$

Show your work

#9

Choose the best answer

Sophia makes \$17 an hour but owes a one time fee of \$1 for a uniform purchase. Write an equation that shows the relationship between the money made s and the hours worked t . e.g. $y=1x+1$

- $1t = 17 + s$ $17t = 1s$
- $s = 17t - 1$ $s = 1t + 17$

Show your work

#10

Alexander is running a business and wants to predict the money lost to vehicle repairs. Vehicle maintenance costs are \$2 per month and there was a one time cost of \$4 due to a blown head gasket. Find the formula to relate the lost vehicle repair costs d and the month e . e.g. $y=1x$

Show your work

#11

Choose the best answer

Since starting a new recycling plan, Ava's office recycles 8 kilograms of paper each week. Write an equation that shows the relationship between the weeks r and the paper recycled q if they first waste 9 kilograms of paper. e.g. $y=1x+1$

- $9r=8 - q$ $q=8r - 9$
- $8r=-9q$ $q=9r + 8$

Show your work

#12

Choose the best answer

Daniel 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 b to the hour c if he sells 4 per hour but has to throw out 8 moldy ones. e.g. $y=1x+5$

- $b=-4c - 8$ $b=-8c + 4$
- $8c=4 + b$ $4c=8b$

Show your work

Question	Answer
#1	$s=12t-3$
#2	choice 1
#3	choice 2
#4	$t=6u-1$
#5	choice 2
#6	choice 2
#7	$v=-5w+1$
#8	choice 3
#9	choice 3
#10	$d=-2e-4$
#11	choice 2
#12	choice 1