Name:

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 6 power units per hour. Find the formula to relate the number of hours d to the amount of power loss c if the ISS gains 3 power units from a solar flare. e.g. $y=1x+5$

○ $c=-3d+6$ ○ $3d=6+c$

○ $c=-6d+3$ ○ $6d=3c$

Show your work

Choose the best answer

Diana 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 12 per hour and finds 10 in the back of the fridge. e.g. $y=1x+5$

○ $12r=10q$ ○ $q=-12r+10$

○ $q=-10r+12$ ○ $10r=12+q$

Show your work

Choose the best answer

You are taking your grain to market tomorrow and have j bushels of wheat, and each bushel sells for $6. Write an equation that shows the relationship between the total worth i, and the number of bushels if you must first pay $10 to sell at the market. e.g. $y=1x+1$

○ $6j=10i$ ○ $i=6j-10$

○ $i=10j-6$ ○ $10j=-6+i$

Show your work

#4

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

○ $6l=-7k$ ○ $k=-6l-7$

○ $k=7l+6$ ○ $7l=6-k$

Show your work

#5

Kaylee wants a formula to figure out how far she went on her run. She will need the total distance e, and how many blocks she ran f. If a block is 8 meters, write the equation she needs if Kaylee first ran 6 meters. e.g. $y=1x+1$

Show your work

#6

The city produces 13 jobs every year r. Write an equation to show the relationship between how many jobs are produced each year, and the total number of jobs q if there are already 9 available. e.g. $y=1x+1$

Show your work

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#7

The city produces 13 jobs every year v . Write an equation to show the relationship between how many jobs are produced each year, and the total number of jobs **u** if there are already 7 available. e.g. $y=1x+1$

Show your work

#8

Choose the best answer

Tyler wants to make a unicorn hair wig, but a unicorn only sheds about 11 hairs per day. Write an equation to show the relationship between days g and the total unicorn hairs shed f if Tyler first owes 4 hairs to his brother. e.g. $y=1x+1$

○ $4g=-11-f$ ○ $11g=-4f$

○ $f=-4g-11$ ○ $f=11g-4$

Show your work

#9

Choose the best answer

A plumber makes \$4 an hour, and wants to calculate how much money she will make in c hours if they have to pay an equipment rental fee of \$3. Write an equation to show the relationship between money made per hour and total money made b. e.g. $y=1x+1$

○ $4c=-3b$ ○ $b=4c-3$

○ $b=3c-4$ ○ $3c=-4-b$

Show your work

#10

Julia is running a business and wants to predict the money lost to vehicle repairs. Vehicle maintenance costs are $9 per month and there was a one time credit of $1 given to her by the mechanic. Find the formula to relate the lost vehicle repair costs s and the month t. e.g. $y=1x+5$

Show your work

#11

Kayla is running a business and wants to predict the money lost to vehicle repairs. Vehicle maintenance costs are $3 per month and there was a one time cost of $10 due to a blown head gasket. Find the formula to relate the lost vehicle repair costs x and the month y. e.g. $y=1x$

Show your work

#12

Farmer Cameron's total chicken flock h 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 i if Cameron received a one time gift of 10 chickens. e.g. $y=1x+5$

Show your work

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Question	Answer
#1	choice 3
#2	choice 2
#3	choice 2
#4	choice 2
#5	e=8f+6
#6	q=13r+9
#7	u=13v+7
#8	choice 4
#9	choice 2
#10	s=-9t+1
#11	x=-3y-10
#12	h=-9i+10

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