#1

Choose the best answer

The city produces 17 jobs every year k. Write an equation to show the relationship between how many jobs are produced each year, and the total number of jobs j if there are already 5 available. e.g. $y=1x+1$

- $j=17k+5$
- $j=-5k-17$
- $5k=-17+j$
- $17k=5j$

Show your work

#2

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

#3

Out at Camp William the squirrels like to sneak and steal sunflower seeds out of the birdfeeder at a rate 18 per hour. Write a formula to find the number seeds lost x related to the hour y if a gust of wind blows 3 seeds out of the feeder. e.g. $y=1x+5$

Show your work

#4

Since starting a new recycling plan, Tyler's office recycles 18 kilograms of paper each week. Write an equation that shows the relationship between the weeks m and the paper recycled l if they have 9 kilograms to start. e.g. y=1x+1

Show your work

#5

The town water tower is leaking 6 water units per day. Relate the amount of water lost n and the day o if 2 units were added via the reserve tank. e.g. y=1x+5

Show your work

#6

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

#7

The city produces 2 jobs every year b. Write an equation to show the relationship between how many jobs are produced each year, and the total number of jobs a if they have to reserve 2 jobs for employment equity e.g. y=1x+1

Show your work

#8

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

#9

Caleb makes $5 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 m and the hours worked n. e.g. y=1x+1

Show your work

#10

Brayden wants a formula to figure out how far he went on his run. He will need the total distance l, and how many blocks he ran m. If a block is 9 meters, write the equation he needs if Brayden first ran 6 meters. e.g. y=1x+1

Show your work

#11

Choose the best answer

Farmer Olivia's total chicken flock k is decreasing. She loses 12 per week. Write a formula to represent the relationship between the total number of chickens and the number of weeks l if Olivia had a one time loss of 9 chickens due to Avian Influenza. e.g. y=1x+5

- ○ $9l=12+k$
- ○ $k=9l+12$
- ○ $k=-12l-9$
- ○ $12l=9k$

Show your work

#12

A plumber makes $10 an hour, and wants to calculate how much money she will make in x hours if they also get a flat rate of $5. Write an equation to show the relationship between money made per hour and total money made w. e.g. y=1x+1

Show your work

Question	Answer
#1	choice 1
#2	choice 2
#3	x=-18y-3
#4	l=18m+9
#5	n=-6o+2
#6	choice 2
#7	a=2b-2
#8	choice 1
#9	m=5n-1
#10	l=9m+6
#11	choice 3
#12	w=10x+5