

#1

The town water tower is leaking 17 water units per day. Relate the amount of water lost e and the day f if 4 units were added via the reserve tank. e.g. $y=1x+5$

Show your work

#2

Alyssa wants a formula to figure out how far she went on her run. She will need the total distance i , and how many blocks she ran j . If a block is 20 meters, write the equation she needs if Alyssa first ran 2 meters. e.g. $y=1x+1$

Show your work

#3

Choose the best answer

Alyssa 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 c to the hour d if she sells 3 per hour and finds 5 in the back of the fridge. e.g. $y=1x+5$

- $3d=-5c$ $5d=-3-c$
- $c=-5d-3$ $c=-3d+5$

Show your work

#4

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

#5

Choose the best answer

Alyssa 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 c to the hour d if she sells 3 per hour and finds 5 in the back of the fridge. e.g. $y=1x+5$

- $3d = -5c$ $5d = -3 - c$
- $c = -5d - 3$ $c = -3d + 5$

Show your work

#6

Choose the best answer

The city produces 18 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 there are already 3 available. e.g. $y=1x+1$

- $k = 3l - 18$ $18l = 3k$
- $3l = -18 + k$ $k = 18l + 3$

Show your work

#7

Since starting a new recycling plan, Caleb's office recycles 20 kilograms of paper each week. Write an equation that shows the relationship between the weeks l and the paper recycled k if they first waste 2 kilograms of paper. e.g. $y=1x+1$

Show your work

#8

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 19 power units per hour. Find the formula to relate the number of hours v to the amount of power loss u if the ISS loses 8 power units from a short circuit. e.g. $y=1x+5$

Show your work

#9

Choose the best answer

Since starting a new recycling plan, Connor's office recycles 16 kilograms of paper each week. Write an equation that shows the relationship between the weeks x and the paper recycled w if they first waste 2 kilograms of paper. e.g. $y=1x+1$

$16x=2w$ $w=16x - 2$

$w=-2x - 16$ $2x=-16 + w$

Show your work

#10

The town water tower is leaking 3 water units per day. Relate the amount of water lost x and the day y if 9 units were added via the reserve tank. e.g. $y=1x+5$

Show your work

#11

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

#12

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 w to the amount of power loss v if the ISS gains 9 power units from a solar flare. e.g. $y=1x+5$

- $10w = -9v$ $v = -10w + 9$
- $v = 9w + 10$ $9w = 10 - v$

Show your work

Question	Answer
#1	$e = -17f + 4$
#2	$i = 20j + 2$
#3	choice 4
#4	$l = 9m + 6$
#5	choice 4
#6	choice 4
#7	$k = 20l - 2$
#8	$u = -19v - 8$
#9	choice 2
#10	$x = -3y + 9$
#11	$m = 5n - 1$
#12	choice 2