

#1

## Choose the best answer

$a=10e+5$  is an equation that aliens use to calculate how old humans are in their time (like dog years). The variable  $e$  is the humans age in earth years and the variable  $a$  is their age in alien years. If someone is 2 years old, how old are they in alien years?

☐ 31☐ 22☐ 25☐ 18

Show your work

#2

## Choose the best answer

$t=2w$  is the equation Caleb uses to figure out how long to cook the turkey every year. The variable  $w$  is the weight of the turkey, and  $t$  is the total time to cook the turkey in minutes. If Caleb has a turkey that weighs 6 pounds, how many minutes does he need to cook it for?

☐ 10☐ 15☐ 12☐ 9

Show your work

#3

## Choose the best answer

$a=2e+6$  is an equation that aliens use to calculate how old humans are in their time (like dog years). The variable  $e$  is the humans age in earth years and the variable  $a$  is their age in alien years. If someone is 3 years old, how old are they in alien years?

☐ 13☐ 12☐ 10☐ 14

Show your work

#4

## Choose the best answer

Gavin is a landscaper and wants to estimate how long it will take to mow a certain area of lawns. He makes the equation  $t=3a$ , where  $t$  is the time in minutes it will take and  $a$  is the area of the lawn in square feet. How long will it take to mow 2 square feet of lawn?

☐ 6☐ 8☐ 4☐ 9

Show your work

#5

## Choose the best answer

The equation  $p=2f+7$  is used by Samantha to calculate how many presents she will receive over the year. The variable  $f$  is how many good things she has done this year, and variable  $p$  is how many presents she'll receive. If Samantha is 8 years old, how many presents does she think she'll get this year?

☐ 18☐ 24☐ 28☐ 23

Show your work

#6

## Choose the best answer

$b=3t+7$  is an equation that tells Kaylee how many paper boats she can fold in a set amount of time. The variable  $t$  is the minutes she has to fold, and  $b$  is how many boats she will fold. If she has 8 minutes, how many boats can she fold? If she has 8 minutes, how many boats can she fold?

☐ 31☐ 24☐ 21☐ 22

Show your work

#7

## Choose the best answer

The following equation helps Alexander calculate how many bales of hay  $b$  he needs to order to feed his herd of cattle  $b=9c$ . If he has 4 cattle in his herd this year, how many bales of hay does he need to order?

☐ 36☐ 38☐ 43☐ 32

Show your work

#8

## Choose the best answer

This equation shows the relationship of number of minutes  $t$  to drive somewhere based on the distance in kilometers  $d$ :  $t=6d$ . If Landon wants to go to the grocery store that is 5 kilometers away, how long will it take?

☐ 35☐ 33☐ 30☐ 26

Show your work

#9

## Choose the best answer

$v=5t$  is an equation that shows how fast (meters per second) something is going  $v$  based on how far it travels over a certain amount of time  $t$ . Scientists are using this equation in an experiment where the distance is always the same as they are testing how long it takes different remote control cars to go the same distance. How fast is a car going if it takes 3 seconds?

☐ 19☐ 16☐ 12☐ 15

Show your work

#10

## Choose the best answer

The equation  $p=7f+8$  is used by Kaylee to calculate how many presents she will receive over the year. The variable  $f$  is how many good things she has done this year, and variable  $p$  is how many presents she'll receive. If Kaylee is 8 years old, how many presents does she think she'll get this year?

☐ 51☐ 45☐ 64☐ 53

Show your work

#11

## Choose the best answer

$b=4t+8$  is an equation that tells Connor how many paper boats he can fold in a set amount of time. The variable  $t$  is the minutes he has to fold, and  $b$  is how many boats he will fold. If he has 9 minutes, how many boats can he fold? If he has 9 minutes, how many boats can he fold?

☐ 30☐ 58☐ 39☐ 44

Show your work

#12

## Choose the best answer

$v=3t$  is an equation that shows how fast (meters per second) something is going  $v$  based on how far it travels over a certain amount of time  $t$ . Scientists are using this equation in an experiment where the distance is always the same as they are testing how long it takes different remote control cars to go the same distance. How fast is a car going if it takes 9 seconds?

☐ 36☐ 26☐ 27☐ 24

Show your work

Question	Answer
#1	25
#2	12
#3	12
#4	6
#5	23
#6	31
#7	36
#8	30
#9	15
#10	64
#11	44
#12	27