Creating Equations Name_____

Define variables, find the slope and y-intercept, and create an equation (in slope-intercept form) for each situation

1. You go to the store to buy batteries. Batteries (x) cost $1.25 (y) each. (m)

$m = \frac{1.25}{1}$

$b = 0$

$y = 1.25x$

x = # of batteries

y = total cost

2. Jimmy babysits his brother and sister. He earns $7.50 (m) per hour (x). (y)

$m = 7.50$

$b = 0$

$y = 7.50x$

y = total money

x = # of hours

3. Dan bought 12 donuts (y) for each 10 boys (x) at the Scout camping trip. He already had (m) 24 donuts.

$m = \frac{12}{10} = \frac{6}{5}$

$b = 24$

$y = \frac{6}{5}x + 24$

y = donuts

x = # of boys

4. Ty mows lawns and earns $30 (m) for each lawn (x). He paid (y) $100 for the lawnmower.

$m = 30$

$b = -100$

$y = 30x - 100$

y = total money

x = # of lawns

5. I go to the store to buy some apples and I find that 5 apples cost $7.00.

The amount spent depends on # of apples

apples = input

money spent = output

$m = \frac{7}{5}$

$b = 0$

$y = \frac{7}{5}x$

y = total money

x = # of apples

6. Jane spends (y) $12.00 each day (x) at college for food. She started with $500.00

$m = 12$

$b = 500$

$y = 12x + 500$

y = total money

x = # of days

7. Your mom bought 1 pizza (y) for each 5 kids (x) at the sleepover.

$m = \frac{1}{5}$

$b = 0$

$y = \frac{1}{5}x$

y = # of pizza

x = # of kids

8. It takes 2 minutes (y) to do each math problem (x) and you have already been working on your math homework for 20 minutes.

$m = 2$

$b = 20$

$y = 2x + 20$

y = total minutes

x = # of math problems

9. You pay $2.00 (y) for each game (x) at the fun fair and you paid $10.00 to get into the fair.

* depends on definition of y variable

$m = 2$

$b = 10$

$y = 2x + 10$

y = money spent

x = # of games

or

$m = -2$

$b = -10$

$y = -2x - 10$

y = total money

x = # of games

10. It takes 20 yards of ribbon to wrap 45 gifts.

$m = \frac{20}{45} = \frac{4}{9}$

$b = 0$

$y = \frac{4}{9}x$

x = # of gifts

y = yards of ribbon

11. Kim earns $25.00 (m) an hour at her new job but she had to spend $1200 on a used car to get to work.

$m = 25$

$b = -1200$

$y = 25x - 1200$

y = total money

x = # of hours

12. Jess has $20.00 and she spends $2.00 (m) each day on gum.

$m = 2$

$b = 20$

$y = 2x + 20$

y = total money

x = # of days