

Warm-Up 1-17

1. Martiana makes a weekly allowance of \$25. She also makes \$8.50 an hour at her job. Write a function for the amount of money she makes each week based on the amount of hours, h , she works.

a. Write an equation for the total amount of money Martiana makes.

b. How much will she make if she works 20 hours?

2. Thomas bought a new car for \$21,000. The value of the car decreases by 10% each year.

a. Write an equation models the value of the car each year.

b. After what year will the value drop below \$8000?

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a. Write an equation for the total amount of money Martiana makes.

$$y = 25 + 8.50h$$

b. How much will she make if she works 20 hours?

$$y = 25 + 8.50(20) = \$195$$

2. Thomas bought a new car for \$21,000. The value of the car decreases by 10% each year. $10\% = 0.1$

a. Write an equation models the value of the car each year.

$$y = 21,000(1 - 0.1)^x \quad y = 21,000(0.9)^x$$

b. After what year will the value drop below \$8000?

$$21,000(0.9)^3 = 15,309$$

$$21,000(0.9)^0 = 73,22.25$$

$$21,000(0.9)^9 = 8,135.83$$

10 years or more
after 9 years

double

0	1
1	2
2	4
3	8
4	16
5	32

x2

triple

0	1
1	3
2	9
3	27
4	81
5	243

x3

Infect 1 per day

0	1
1	2
2	4
3	8
4	16
5	32

x2

Infect 2 per day

0	1
1	3
2	9
3	27
4	81
5	243

x3

Project Time!

Homework

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