

Worksheet - Rate of Change, Initial Value, & Equations

For the following questions, determine:

- the initial value
- the rate of change
- the equation (include your let statements)

1. A family meal deal at Chicken Deluxe costs \$26, plus \$1.50 for every extra piece of chicken added to the bucket.

2. A Chinese food restaurant has a special price for groups, dinner for two costs \$14 per meal

3.

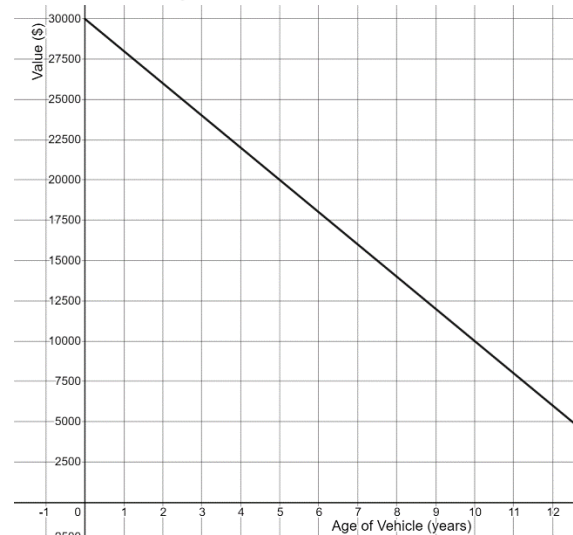
Number of Toppings	Cost of a Large Pizza (\$)
0	9.40
1	11.50
2	13.60
3	15.70
4	17.80

4.

Number of Scoops	Cost of Ice Cream with Sugar Cone (\$)
0	1.25
1	2.00
2	2.75
3	3.50
4	4.25

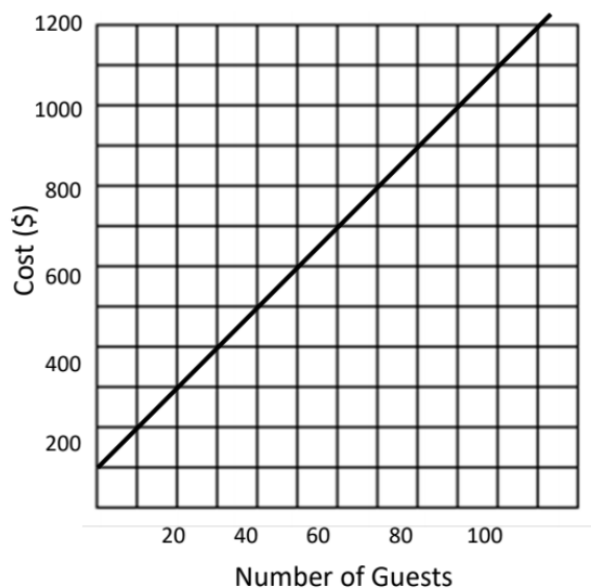
5.

Depreciated Value of a Mid-size Car



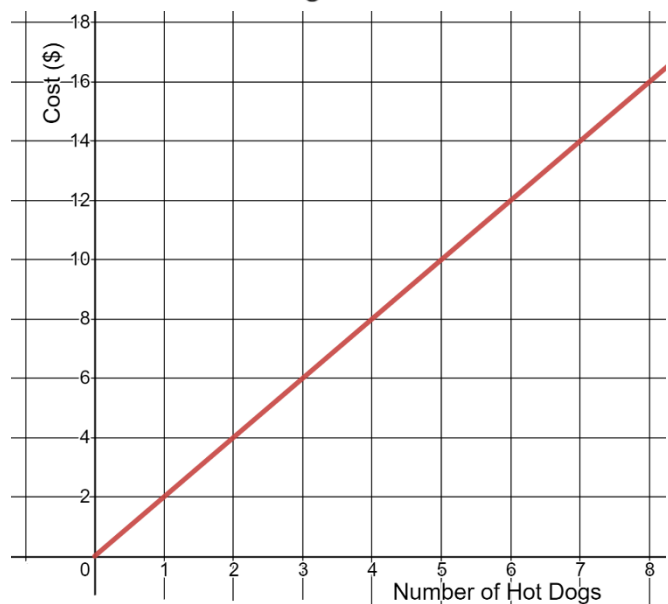
6.

Cost of Holding a Formal at a banquet Hall



7.

Total Cost of Hot Dogs at the Baseball Game



Answers:

1. Initial Value: \$26, Rate of Change: \$1.50/chicken, Equation: $C=1.50p+26$
2. Initial Value: \$0, Rate of Change: $14/2=\$7/\text{meal}$, Equation: $C=7m$
3. Initial Value: \$9.40, Rate of Change: \$2.10/topping, Equation: $C=2.10t+9.40$
4. Initial Value: \$1.25, Rate of Change: \$0.75/scoop, Equation: $C=0.75s+1.25$
5. Initial value: \$30 000, Rate of Change: $-\$2000/\text{year}$, Equation: $V=-2000t+30000$
6. Initial value: \$100, Rate of Change: \$10/guest, Equation: $C=10g+100$
7. Initial value: \$0, Rate of Change: \$2/hot dog, Equation: $C=2h$