

# Warmup $9/(\sqrt[2]{25} + 1)$

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## FUN FRIDAY!

Using the numbers 1-16 (each number is only used once), fill in the blanks so that every row, column, and diagonal has the sum of 34.

**\*\*\*Don't forget to do the reflection!!!\*\*\***

13	3	6	12
2	16	9	7
11	5	4	14
8	10	15	1

Go over Mini-Quiz

CHECK HOMEWORK

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# Mini-Quiz Tuesday

- Is it a function?
- Function Notation  $f(x)$
- Writing a Function and Describe the Independent and Dependent Variables
- Function Notation and Graphs

# IMPORTANT

- **$f(x)$  DOES NOT MEAN “f times x”**
- **$f(5)$  means “What do you get when you plug “5” into the function “f”?”**
- **\*\*\*You have to be smart about it and recognize when a letter is being used as a variable and when it is the name of a function!!!\*\*\***

# **COPY THIS!!!**

**What does  $c(-3) = 10$  mean?**

**MEANS:**

**“when I input -3 into the function “c” I get 10 as my output”**

# Evaluate the functions:

$$r(x) = -2x + 8$$

$$s(x) = 3x^2$$

$$t(x) = |x - 2|$$

1.  $s(5) = 75$

$$S(5) = 3(5)^2$$

$$S(5) = 3(25)$$

$$S(5) = 75$$

2.  $t(5) = 3$

3.  $r(-6) = 20$

4.  $t(-4) = 6$

5.  $s(-3) = 27$

# WHITEBOARDS



- **Write a rule in function notation to model the situation. Describe what the input and output represent.**
- Herb is buying pizzas. Each pizza costs \$12.

$$c(x) = 12x$$

**Input: # of pizzas**

**Output: Total cost**

- **Write a rule in function notation to model the situation. Describe what the input and output represent.**
- Kim walks 4 miles every hour.

$$m(x) = 4x$$

**Input: # of hours**

**Output: # of miles walked**

- **Write a rule in function notation to model the situation. Describe what the input and output represent.**
- There are 100 brownies on a tray. 2 brownies are eaten every minute.

$$b(x) = 100 - 2x$$

$$b(x) = 2x$$

**Input: minutes**

**Output: # of brownies left OR # of brownies eaten**

- **Write a rule in function notation to model the situation. Describe what the input and output represent.**
- Willard has \$150 to spend on iTunes. He is downloading songs, each of which cost \$1.29.

$$f(x) = 150 - 1.29x$$

$$f(x) = 1.29x$$

**Input: # of songs downloaded**

**Output: amount of money spent (or amount of money he has left)**

# Independent vs Dependent Variables

- **The input of a function is the independent variable**
- **The output of a function is the dependent variable**
- *The value of the dependent variable depends on, or is a function of, the value of the independent variable*

- **Write a rule in function notation to model the situation. Give the independent and dependent variables:**
- Amanda babysits and charges \$5 per hour.

$$f(x) = 5x$$

**Independent: # of hours**

**Dependent: total amount charged**

- **Write a rule in function notation to model the situation. Give the independent and dependent variables:**
- An amusement park charges a \$5 fee for parking and \$30 per person.

$$f(x) = 30x + 5$$

**Independent: # of people**

**Dependent: total amount charged**

# Homework

- **Worksheet**