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## Warmup $9/(\sqrt{144} - 12 + 6 \times 2)$

\*\*\*EACH PAIR should have a whiteboard, marker, eraser inside your desk!!!\*\*\*

 What is the main rule to be able to tell if something is a function or not? Try to write it without looking at your notes.

For 2 – 4, use the given functions.

- $j(x) = 8 x^3$  k(x) = n!
- 2. Find j(3).
- 3. Find j(-4).
- 4. Find k(3).



#### Whiteboards!

Remember, ONLY MATH on the whiteboards.

#### Partners:

- Take turns writing!
- Make sure you discuss so you both understand.



### Writing a function rule

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

m(h) = 4h

Input: # of hours Output: # of miles walked • Write a rule in function notation to model the situation. Describe what the input and output represent.

 A moving company charges \$130 for truck rental plus \$1.50 per mile driven.
 c(m) = 130 + 1.50m

Input: # of miles driven Output: total cost

## Writing a function rule

- 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.

Input: # of minutes Output: # of brownies left <u>OR</u> # of brownies eaten

If output is "brownies eaten": b(m) = 2m
If output is "brownies left": b(m) = 100 - 2m

#### There are 100 brownies on a tray. 2 brownies are eaten every minute.

- "Output: # of brownies" is not specific enough
- "Output: brownies" is even worse and is pretty much just lazy
- Need to specify: # of brownies LEFT or # of brownies EATEN, because in this situation, it could be both!



#### WRITE THIS ONE DOWN:

• Write a rule in function notation to model the situation. Describe what the input and output represent.

#### Writing a Function Rule:

Willard has \$150 to spend on iTunes. He is downloading songs, each of which cost \$1.29.

#### **INPUT:**# of songs downloaded

IF OUTPUT IS "amount of money spent", the rule is: f(x) = 1.29x IF OUTPUT IS "amount of money left", the rule is: f(x) = 150 - 1.29x

# Complete/Revise #11, 12, 13 on the Homework

 #13 has a typo; it should say "same situation as #12…"