

Bell Work

1/29/2015

**Please get YOUR calculator**

What are characteristics of  
a linear relationship?

- Constant Rate of Change  
↳ by addition & subtraction
- Straight line

Continue with Shara and her babysitting -  
What family should she choose?

Some things to think about:

- What happens if she doesn't babysit for all 20 days?
- Could she make the same amount with each family?
- How long should she work at one over the other?

LINEAR Comparing the Pi & Radical Families

Pi Family  
CROC = \$75

slope

Starts at \$100

y-intercept

$$y = 75x + 100$$

Pay Rate

Starting Money

Radical Family

Non-linear

Pay Rate: Doubles  
Multiply by 2.

Starting Money: \$0.01

$$y = (0.01)2^x$$

\$ earned

Starting \$

Pay Rate

deep worked

Using your graphing calculator to graph!

Clear your calc.  $\boxed{2^{\text{nd}}}$   $\oplus$   $\textcircled{7}$   $\textcircled{1}$   $\textcircled{2}$

To graph something, it must be  
in "y = ." So click on the  
 $\boxed{y=}$  button, top left.

x	0	1	2	3	4
y	3	12	48	192	

$$y = 3(4)^x$$

## Exponential Functions

$$y = (\text{Starting Point}) (\text{Rate of Change})^x$$

Growth/Decay

↙ whole #      ↘ fraction