

Note:

At the end of the term, I will be dropping some LCO's (up to one third). As of last week one of those have already been dropped. It should show up on Synergy a little letter "d" next to it.

HW
TALLY →

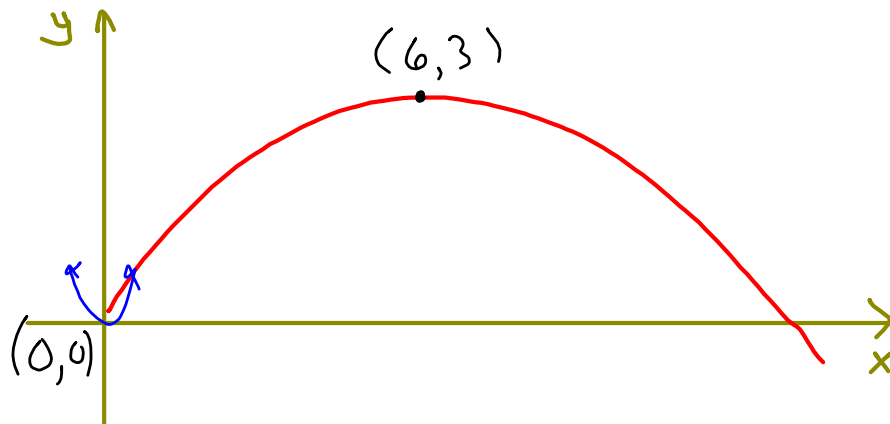
it is dynamic

Warm Up

Start with the parent function

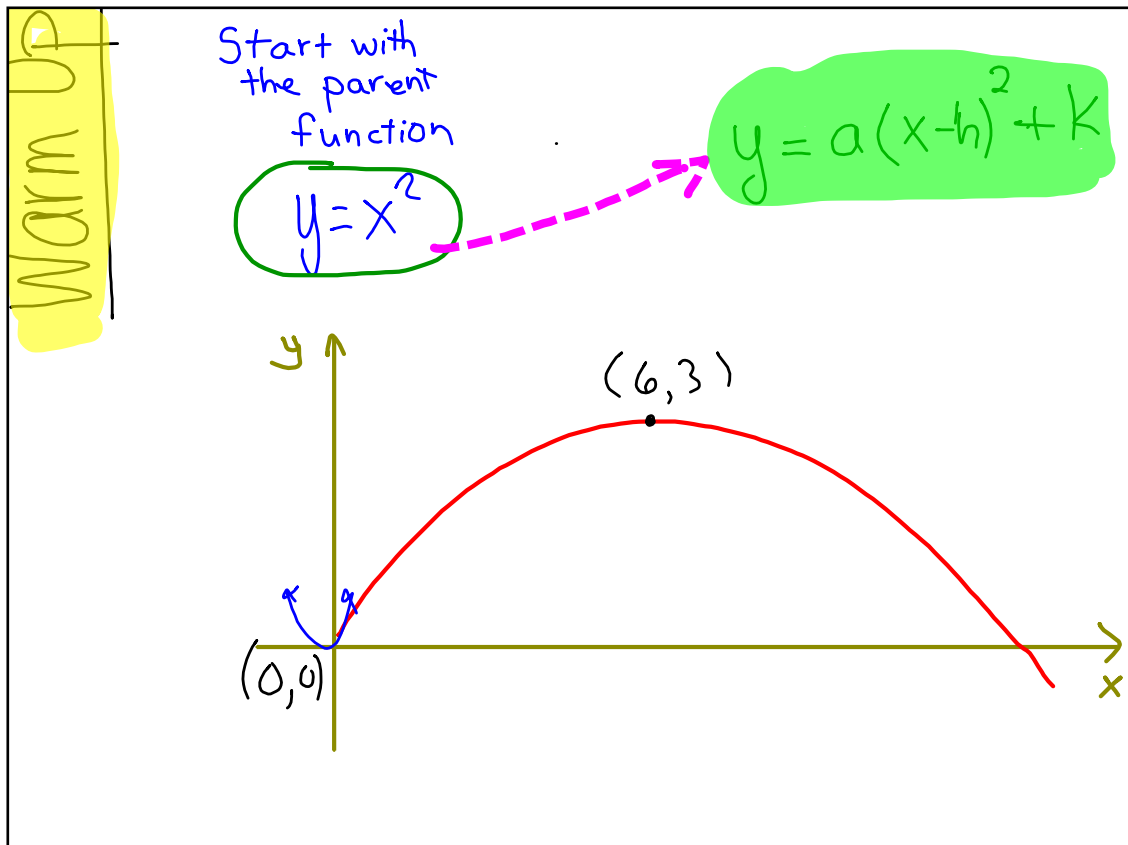
$$y = x^2$$

Create an equation of the parabola given the set up.



As you know I will be dropping some of your LCQ's (up to one third of them)

One of them as already been dropped.



$$y = x^2$$
$$y = a(x-h)^2 + k$$

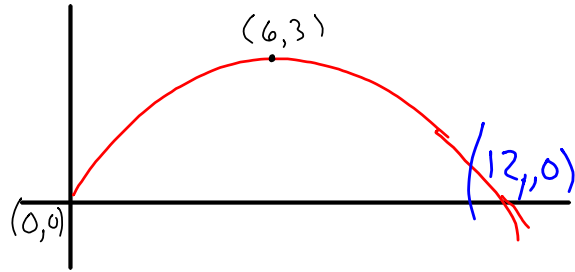
$$y = a(x-6)^2 + 3$$

$$0 = a(0-6)^2 + 3$$

$$0 = 36a + 3$$

$$a = -\frac{3}{36}$$

$$a = -\frac{1}{12}$$



$$\therefore y = -\frac{1}{12}(x-6)^2 + 3$$

Questions
on HW

40

40
c

$$y = 2(x+3)^2 - 5 \quad y = 14x + 17$$

$$2(x+3)^2 - 5 = 14x + 17$$

$$2(x+3)(x+3) - 5 = 14x + 17$$

$$(2x+6)(x+3) = 14x + 22$$

$$2x^2 + 6x + 6x + 18 = 14x + 22$$

$$2x^2 - 2x - 4 = 0$$

$$\frac{2(x^2 - x - 2)}{2} = 0$$

$$(d) \quad y = 3(x-2)^2 + 3 \quad y = 6x - 12$$

41

$$(a) \quad 3(y+1)^2 - 5 = 43$$

$$\textcircled{b} \quad \sqrt{1-4x} = 10$$

$$\textcircled{c} \quad \frac{6y-1}{y} - 3 = 2$$

$$\frac{6y-1}{y} = 5$$

$$\textcircled{d} \quad \sqrt[3]{1-2x} = 3$$

42 is a checkpoint ✓
 -meaning you should be close to mastery

(a) $t(n) = 1, 4, 7, 10$

Explicit $t(n) =$ or $t(n) =$

Recursive $\begin{cases} t(1) = \\ t(n+1) = \end{cases}$

(b) $\frac{3}{1}, \frac{3}{2}, \frac{3}{4}, \frac{3}{8}$ multiplier: $\frac{1}{2}$

Explicit $t(n) = 3\left(\frac{1}{2}\right)^{n-1}$

Recursive $\begin{cases} t(1) = 3 \\ t(n+1) = \frac{1}{2}t_n \end{cases}$

(c) Arithmetic

n	t(n)
0	
1	17
2	
3	3
4	

Explicit : $t(n)$

Recursive: $\begin{cases} t(1) = \\ t(n+1) = \end{cases}$

(d) Geometric

n	t(n)
0	
1	
2	7.2
3	8.64
4	

$t(n) =$

$\begin{cases} t(1) = \\ t(n) = \end{cases}$

③ If arithmetic sequence \rightarrow $t(7) = 1056$
 $t(12) = 116$
 $t(4) = ?$

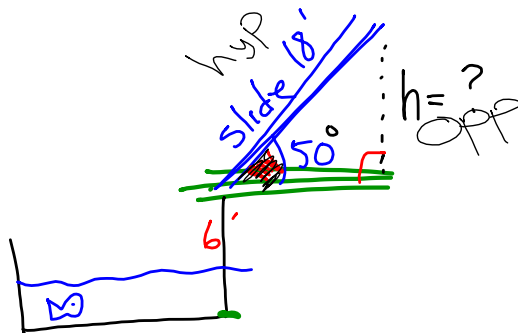
7	1056
8	
9	
10	
11	
12	116

43

Soh cah Toa
 $\nearrow \uparrow$

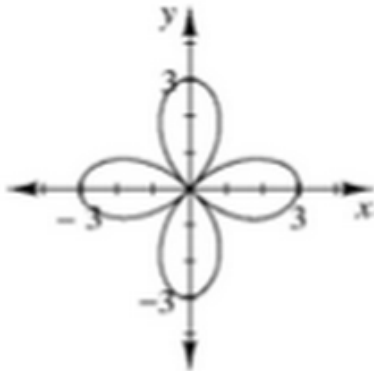
$$\sin 50^\circ = \frac{h}{18}$$

$$h = 18 \cdot \sin 50^\circ$$

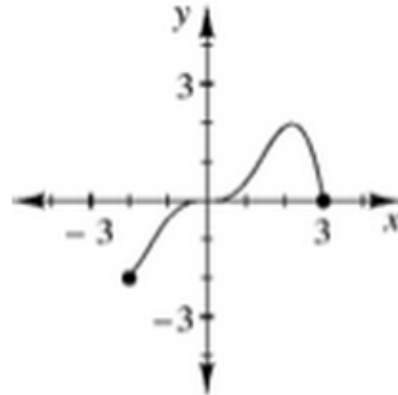


45

a.



b.



46

Solve system

$$2^{x+y} = 16$$

$$2^{1x+y} = \frac{1}{8}$$

$$2^{x+y} = 16$$

Pick up
the
Solutions



Aim

Use problem solving skills
to write equations and find
solutions to applications.

As you work on the three problems today, be thinking about

How can we model it?

What does the solution tell us?

Are there any new strategies that might be useful.

- 3 problems
- all different
- Goal: set up and solve all 3

Persistence
😊

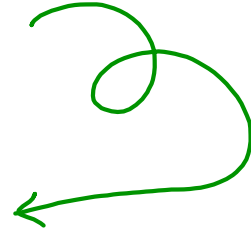
Work with a
cooperative spirit on

How Tall is

Harold ?

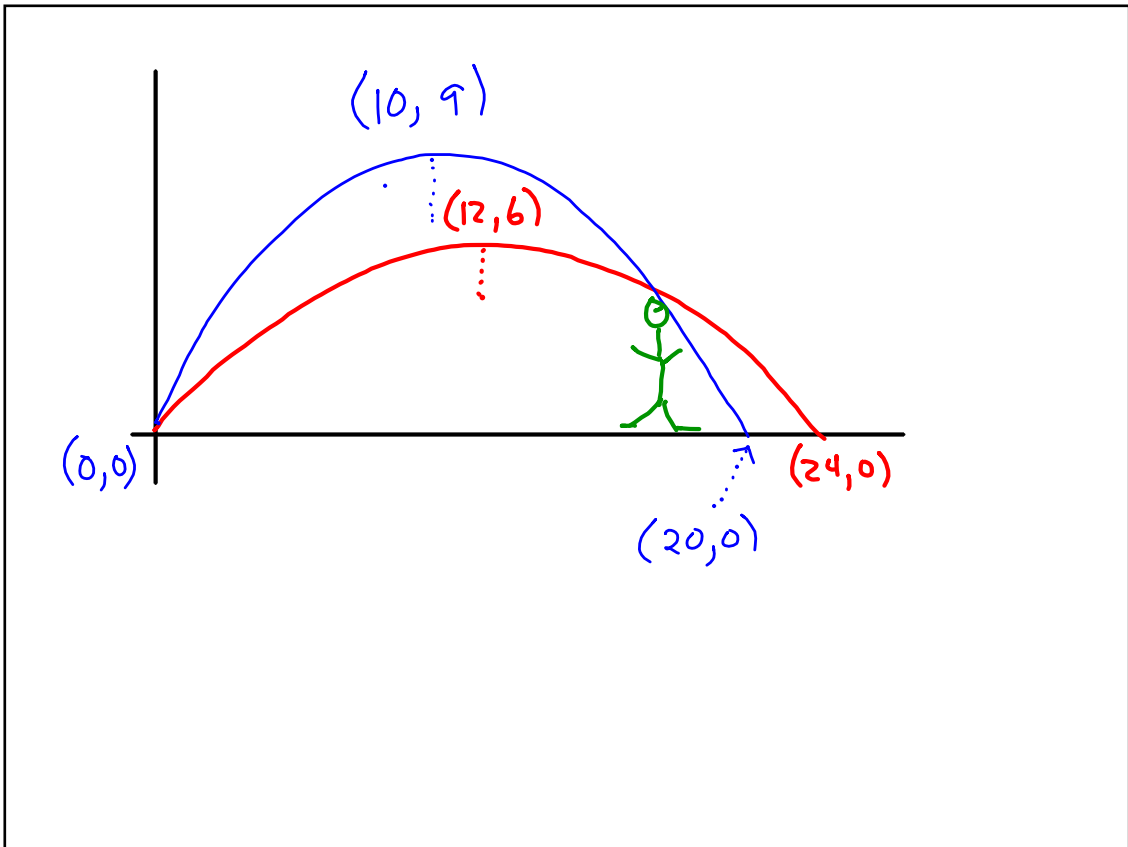
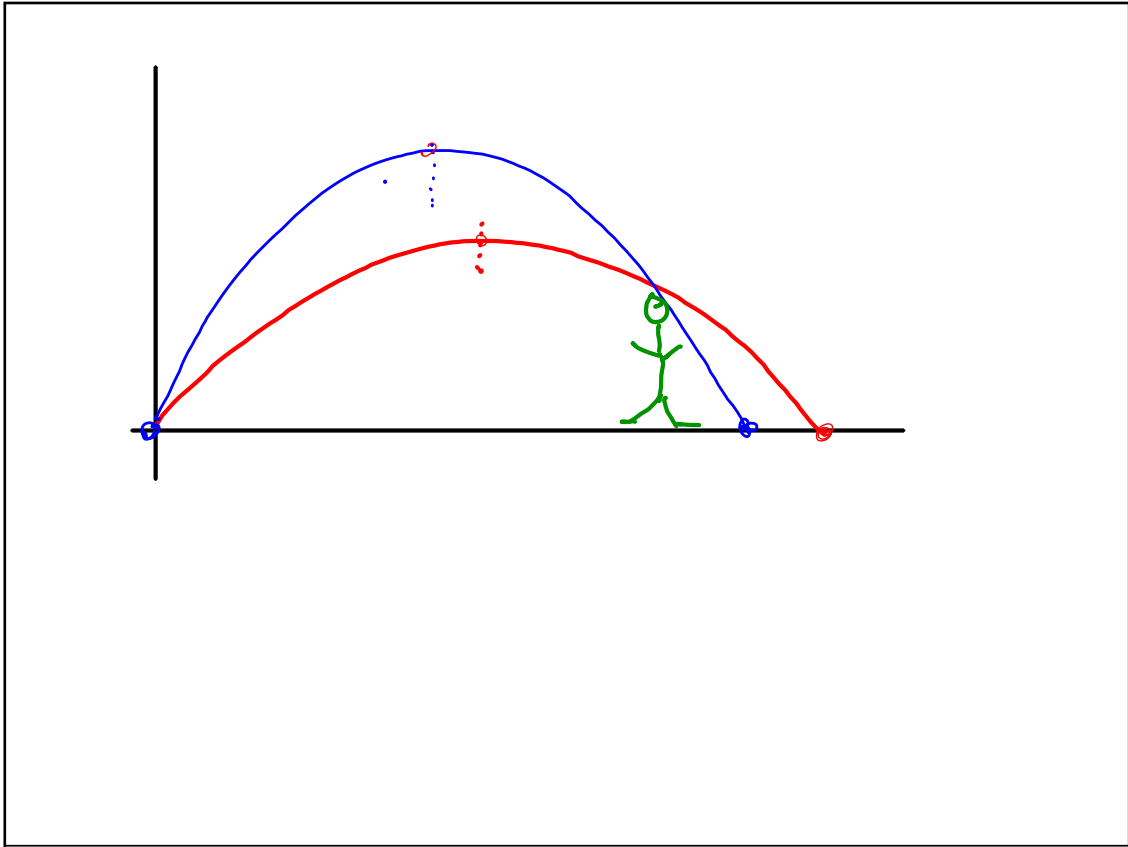
4-47

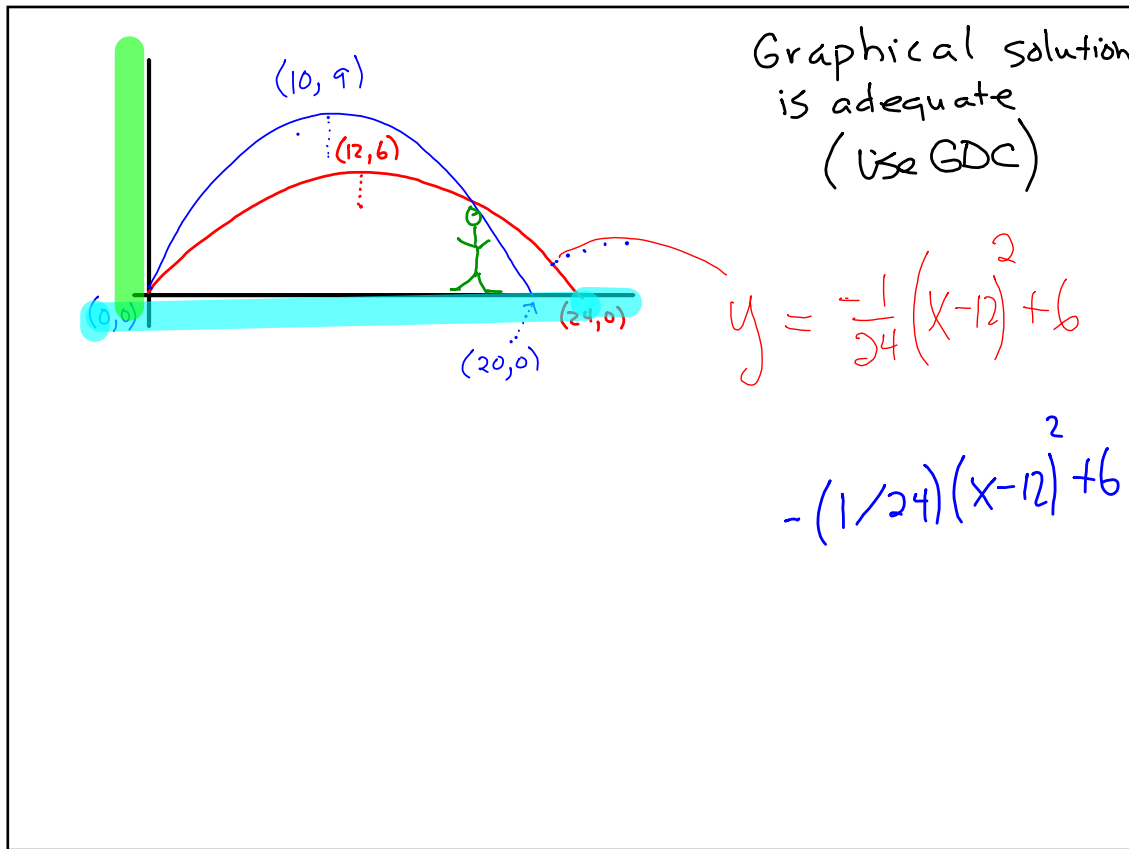
P.182



See if, as a class,
we can come up with
a good sketch.

[Start with you
then group]





When your group is finished

→ Have me check your answer, then

4 - 48

p. 183

47 define variables

i.e. $a = \text{cost of chocolate truffles}$
 $b = \text{cost of caramel turtles}$

TOTALS Given

↓

$$5x + 2y$$

$$= 4.25$$

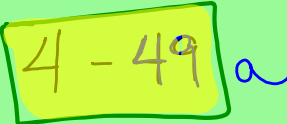
$$2x + 8y$$

$$= 3.50$$

= cost of caramel

= cost of truffles

Have me check your
group's answer
before moving on
to



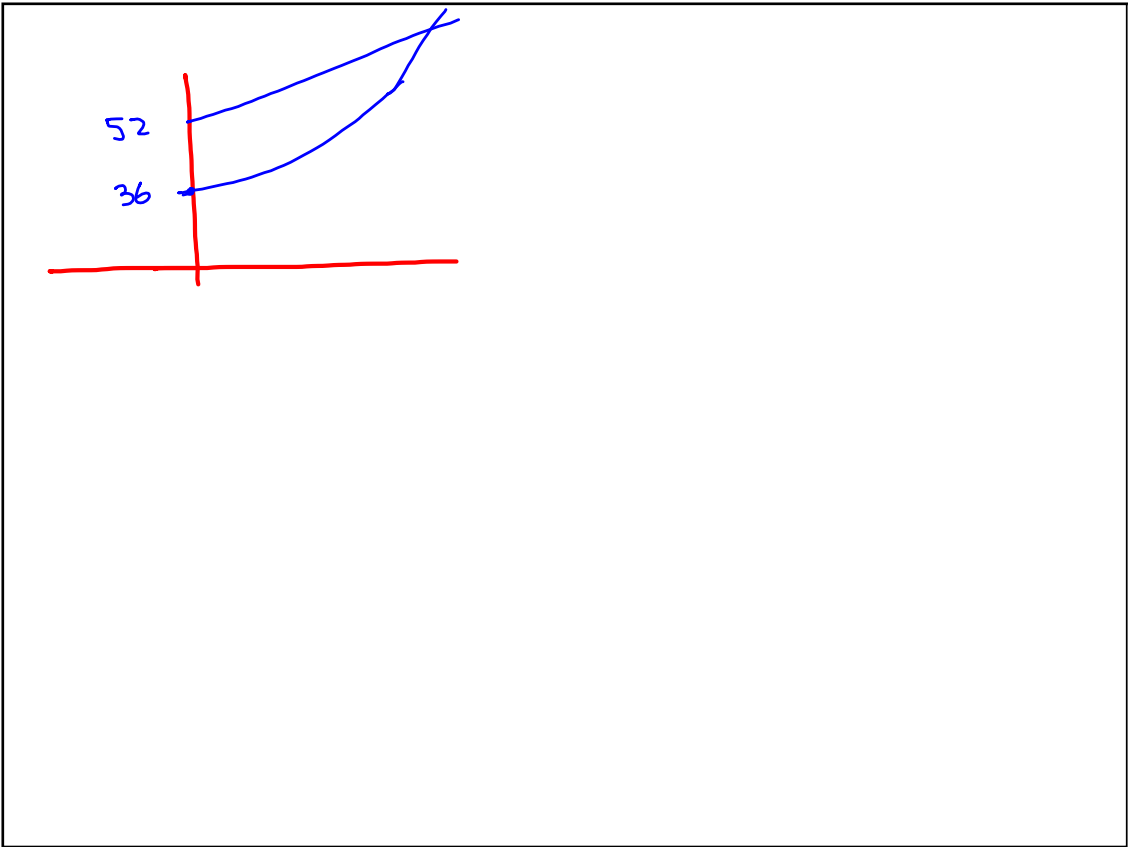
$4 - 49^a$

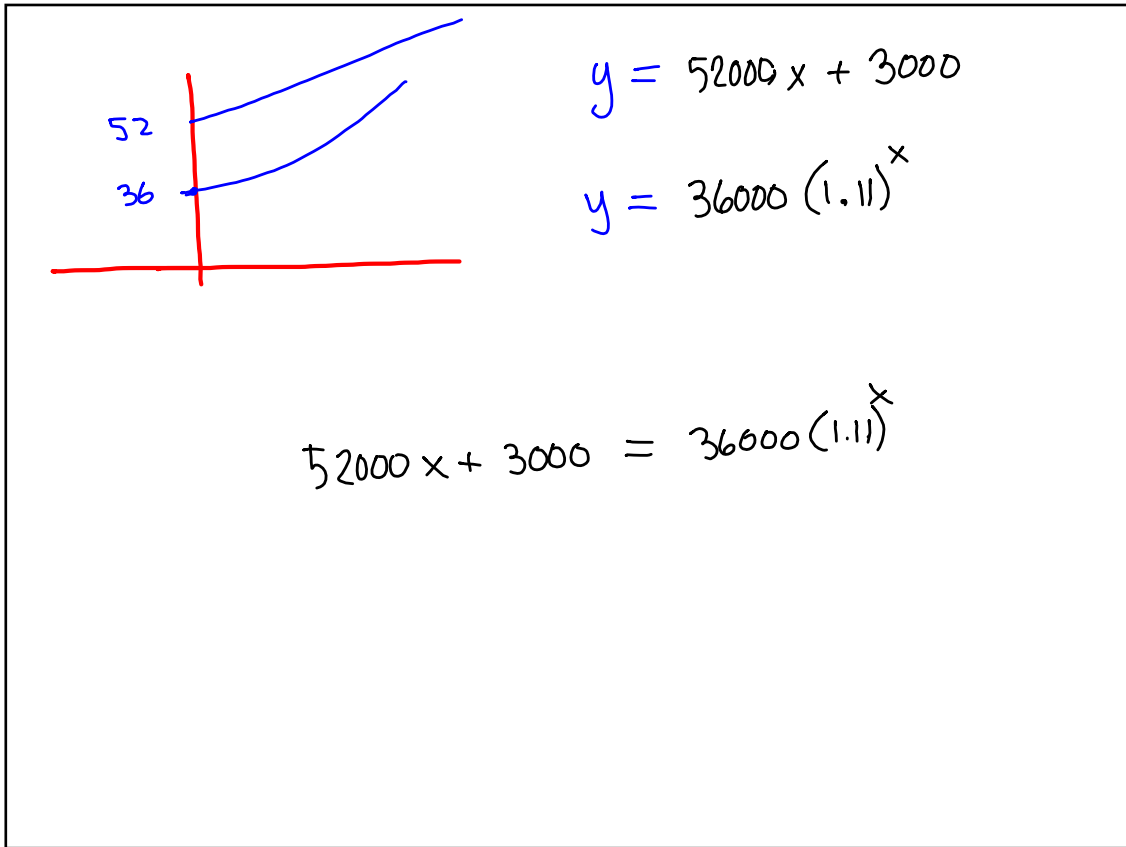
49^a

When you get an
answer, ask yourself

Is my answer really
my answer?

Job A \$ 52,000 , 3000 raises
Job B \$ 36,000 , 11% raises





Assignment

4 - ... 51-54, 55a, 56, 57

mc \rightarrow pf

