

Activator

Determine the outputs for $f(x) = -3x + 10$

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Lesson 3.6

for $f(1)$

$$f(x) = -3x + 10$$

$$f(1) = -3(1) + 10$$

$$f(1) = -3 + 10$$

$$f(1) = 7$$

for $f(2)$

$$f(x) = -3x + 10$$

$$f(2) = -3(2) + 10$$

$$f(2) = -6 + 10$$

$$f(2) = 4$$

The points
are

$(1, 7)$ $(2, 4)$

Use Algebra.

Today's Objective

Lesson 3.6

Students will be able to determine the average rate of change.

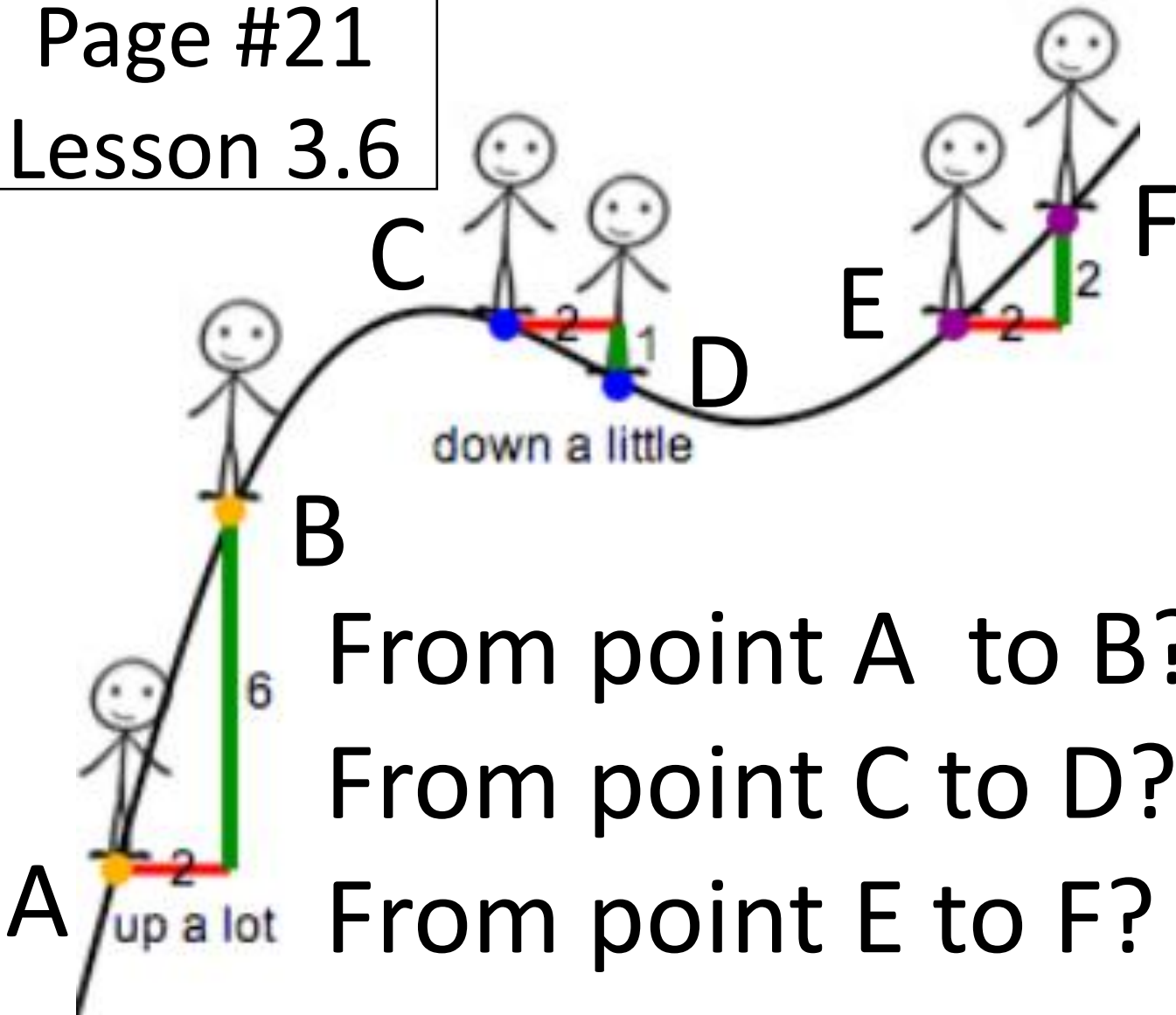




Today's New Vocab (1 of 4)

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Lesson 3.6



Determine if the rate of change (slope) is positive or negative.

From point A to B? + Why? Increasing

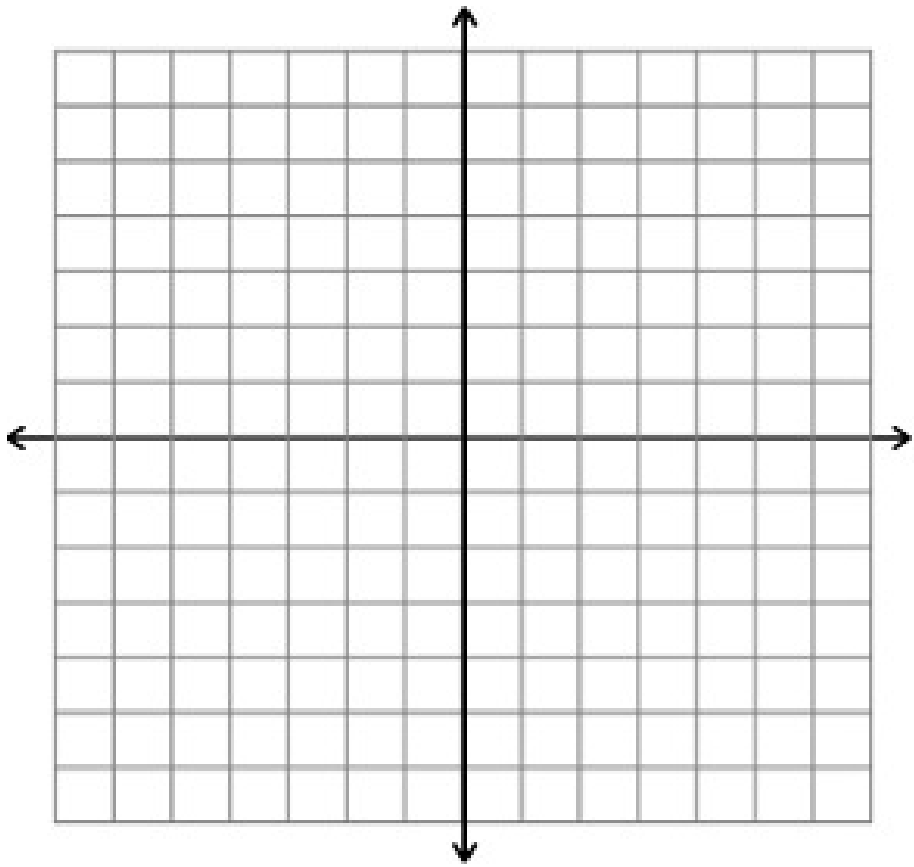
From point C to D? - Why? Decreasing

From point E to F? + Why? Increasing

Today's New Vocab (2 of 4)

Is the average rate of change (slope) increasing or decreasing? **Decreasing**

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x	f(x)
1	7
2	4

Why?

The line is going down from left to right and the **f(x) column** is decreasing.

Today's New Vocab (3 of 4)

Determine the average rate of change (M).

If $f(1) = 7$ and $f(2) = 4$.

$$\frac{-3}{+1} = -3$$

+1

x	y or f(x)
1	7
2	4

-3

Rate of change (Slope) = $\frac{\text{change in } y \text{ or Range}}{\text{change in } x \text{ or Domain}}$

Today's New Vocab (4 of 4)

What is the average rate of change when $1 \leq x \leq 4$?

Make a table

$$f(x) = -3x + 10$$

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Lesson 3.6

$$\frac{\text{Range}}{\text{Domain}} = \frac{-9}{+3} = -3$$

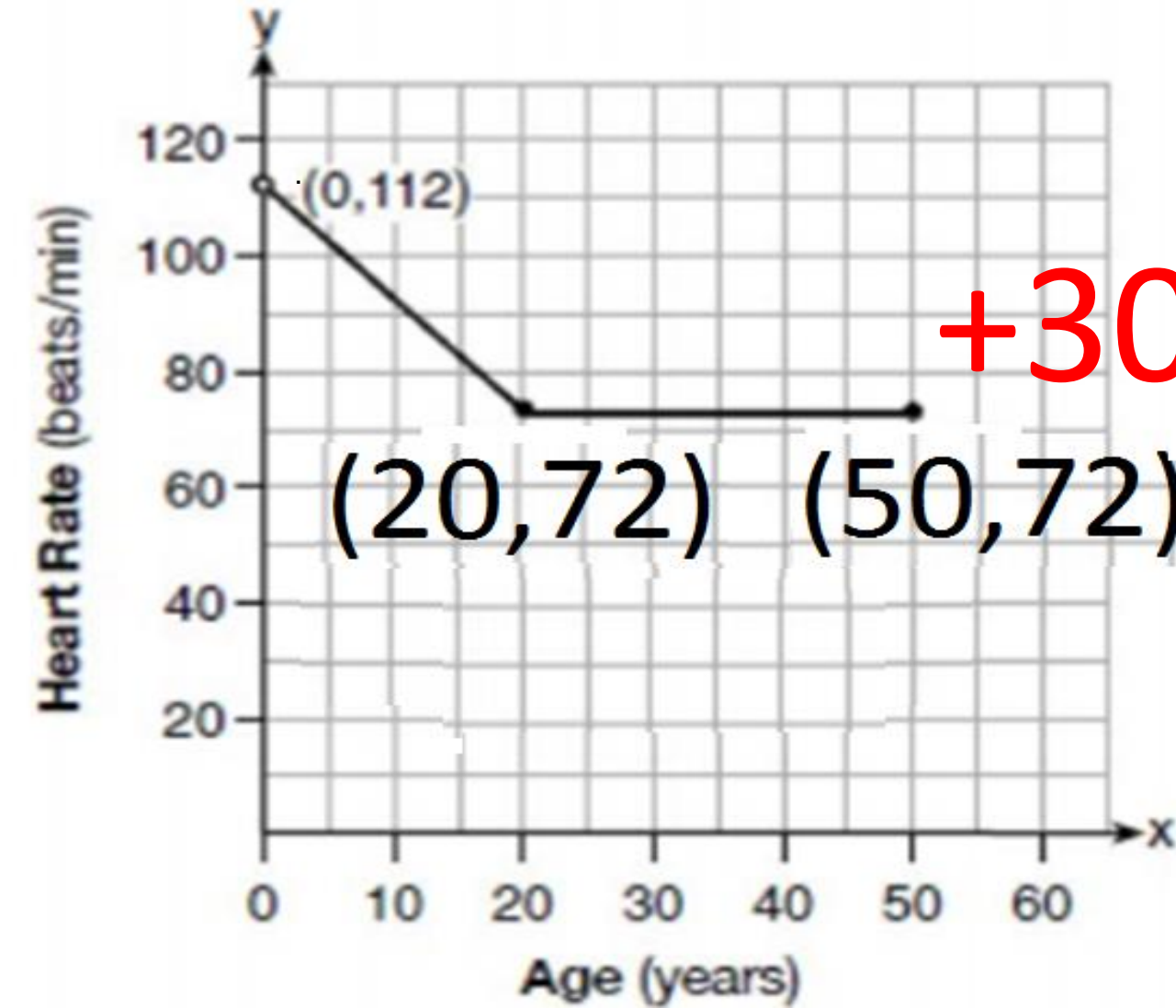
x	y
1	7
2	4
3	1
4	-2

+3

-9

Exit Ticket

What is the average rate of change from age $20 \leq x \leq 50$?



x	y or $f(x)$
20	72
50	72

$+0$

$$\frac{R}{D} = \frac{+0}{+30} = 0$$

Group Work Questions

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Lesson 3.6

Directions: All groups, please do all of the questions. Use your notes from last class to help you. [Ask 2 people before you ask me.]

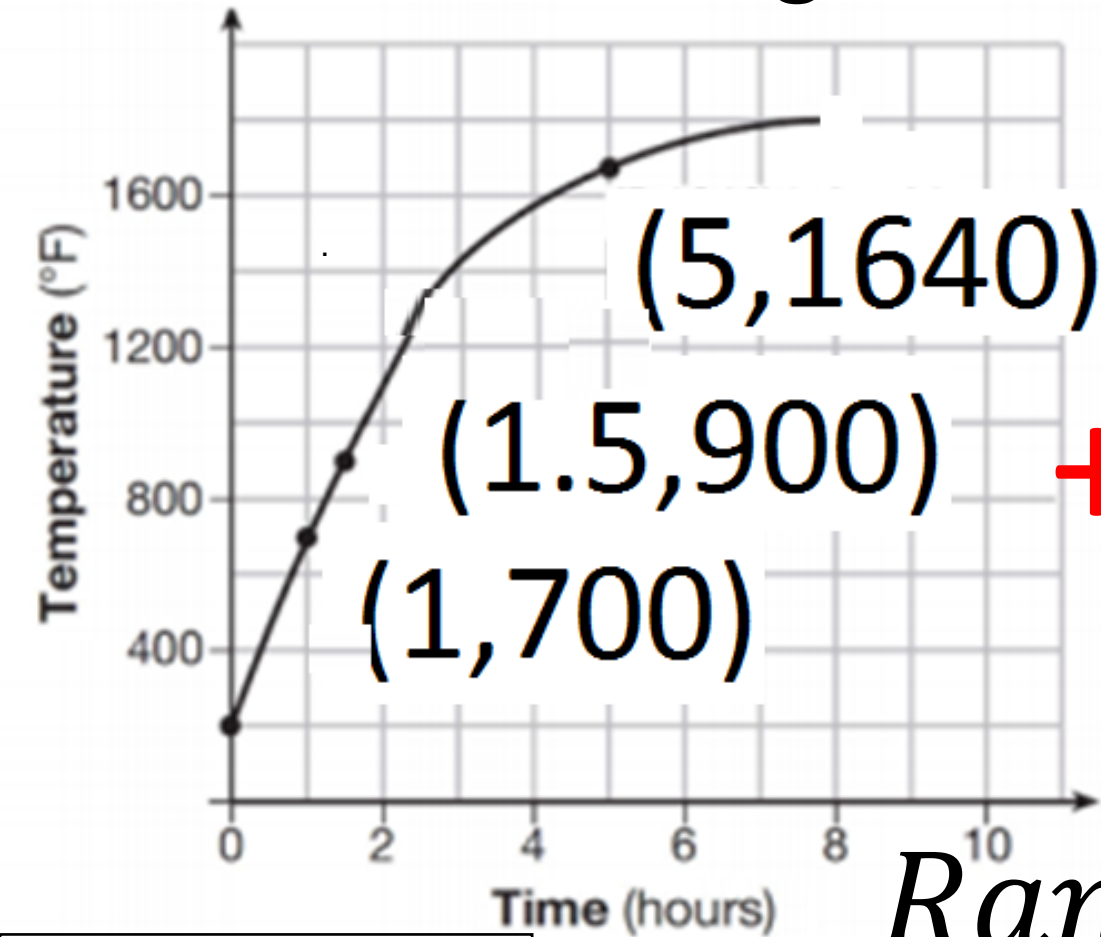
Last time, we did Lesson 3.6 Notes.

1st Stop @ 8:17

*One person from each group will present one question.

Work Period

What is the average rate of change from hours $1 \leq x \leq 5$?



x	y or $f(x)$
1	700
5	1640

+940

$$\frac{\text{Range } (y)}{\text{Domain } (x)} = \frac{+940}{+4} = 235$$