Sec I – Term 3 Name_____ ID: 1

Notes: T3-43 Four Representations Date_____Period_____

Review:

Linear Equation:

$$f(x) = mx + b$$

Remember y = and f(x) = are essentially the same thing!

Evaluating a function:

Given f(x) = 4x -7, find the value when x = 3

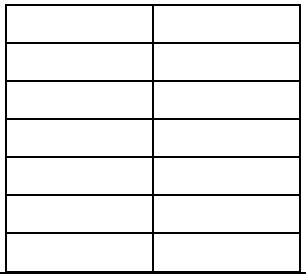
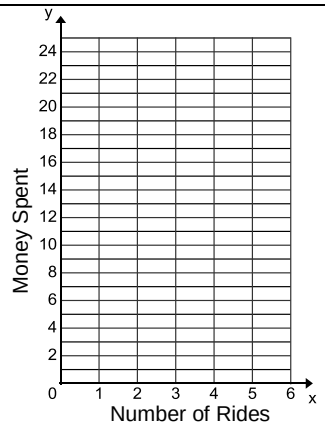
Given f(x) = 1/2x +3, fine the value of when x = -10

For f(x) = 4x -7, What is the value of x when f(x) = 33?

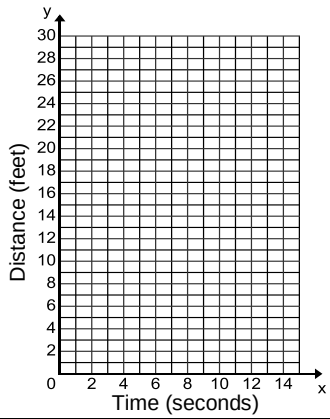
For f(x) = 1/2x +3, What is the value of x when f(x) = 63?

Directions: In each of the following problems, you are given one of the representations of a linear function. Complete the remaining 3 representations and answer the questions.

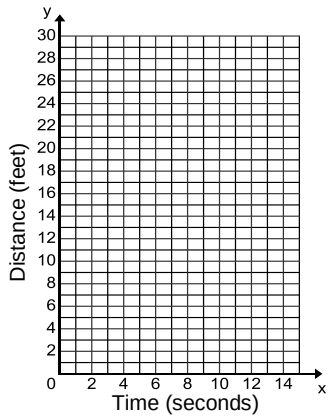
1.

Context	Table	Questions
You and your friends go to the state fair. It costs $5 to get into the fair and $3 each time you go on a ride		a) discrete or continuous b) domain c) range d) What is the value at $f(10)$?
Graph 	Rate of Change (Slope): Start Point (*y*-intercept): Equation:	e) What is the value at $f(15)$? f) What *x*-value makes $f(x) = 41$ true?

2.

Context	Table	Questions
	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>	a) discrete or continuous b) domain c) range d) What is the value at $f(7)$?
Graph 	Rate of Change: Start Point (*y*-intercept): Equation: $f(x) = -2x + 30$	e) What is the value at $f(11)$? f) What *x*-value makes $f(x) = -10$ true?

3.

Context	Table	Questions
	<table><tr><td>0</td><td>6</td></tr><tr><td>3</td><td>12</td></tr><tr><td>6</td><td>18</td></tr><tr><td>9</td><td>24</td></tr><tr><td>12</td><td>30</td></tr></table>	a) discrete or continuous b) domain c) range d) What is the value at $f(4)$?
Graph 	Rate of Change: Start Point (*y*-intercept): Equation:	e) What is the value at $f(40)$? f) What *x*-value makes $f(x) = 66$ true?

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WS: T3-43 Four Representations Date_____ Period_____

Directions: In each of the following problems, you are given one of the representations of a linear function. Complete the remaining 3 representations and answer the questions.

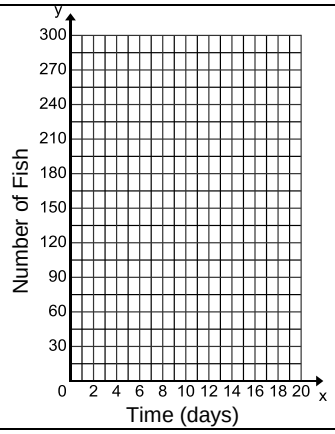
1.

Context

There are 300 fish in a pond. A crocodile is loose in the pond and is eating the fish. Each day the crocodile eats 15 fish.

Table

Graph



Rate of Change:

Start Point (*y*-intercept):

Equation:

Questions

a) discrete or continuous

b) domain

c) range

d) What is the value at $f(12)$?

e) What is the value at $f(20)$?

f) What *x*-value makes $f(x) = 225$ true?

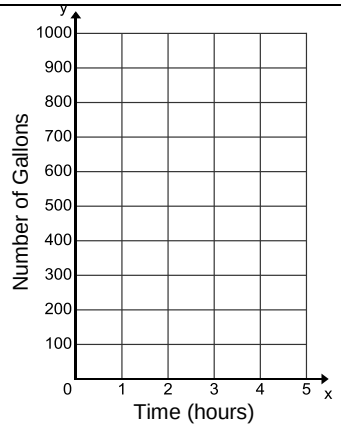
2.

Context

Table

Time (hours)	Water (gallons)
0	1000
1	800
2	600
3	

Graph



Rate of Change:

Start Point (*y*-intercept):

Equation:

Questions

a) discrete or continuous

b) domain

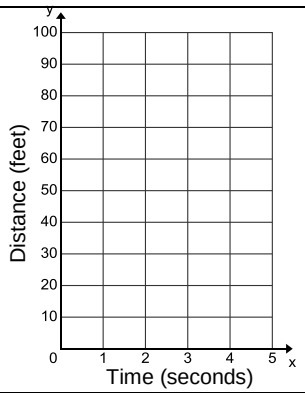
c) range

d) What is the value at $f(2.5)$?

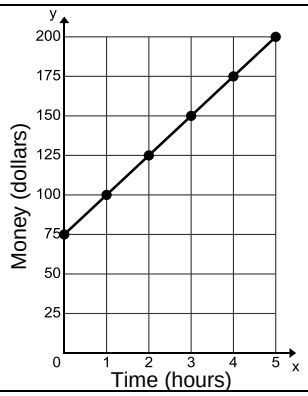
e) What is the value at $f(4)$?

f) What *x*-value makes $f(x) = 250$ true?

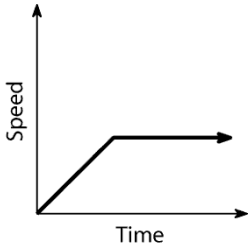
3.

Context	Table	Questions
		a) discrete or continuous b) domain c) range d) What is the value at $f(8)$? e) What is the value at $f(15)$? f) What x-value makes $f(x)=200$ true?
Graph 	Rate of Change: Start Point (y-intercept): Equation: $f(x)=5x+50$	

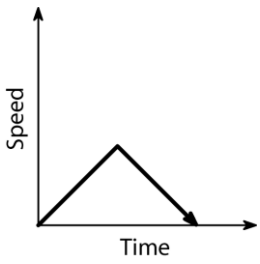
4.

Context	Table	Questions
		a) discrete or continuous b) domain c) range d) What is the value at $f(3.75)$? e) What is the value at $f(10)$? f) What x-value makes $f(x)=275$ true?
Graph 	Rate of Change: Start Point (y-intercept): Equation:	

5. Write the context for each graph



Context:



Context: