Foundations of Algebra

Day 1-Intro to Functions

Practice Assignment

Unit 5: Linear Functions

Name: Key

Date: _____ **Block:** _____

State the domain and range of the relation. Then determine if the relation is a function.

1.) {(1, 2), (4, 3), (5, 9), (- 2, 0)}

Function

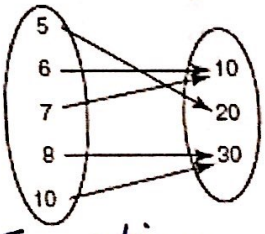
Domain: {1, 4, 5, -2}
Range: {2, 3, 9, 0}

2.) Not a function

X	Y
−8	1
6	2
5	3
−8	4
7	5
3	3

Domain: {3, 5, 6, 7, 8}
Range: {1, 2, 3, 4, 5}

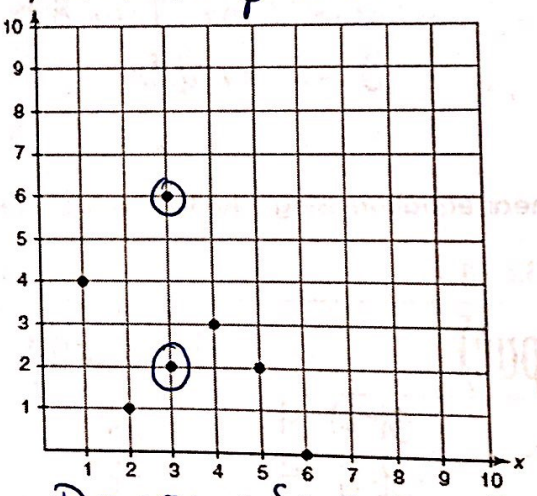
3.)



Function

Domain: {5, 6, 7, 8, 10}
Range: {10, 20, 30}

4.) Not a function



Domain: {1, 2, 3, 4, 5, 6}
Range: {0, 1, 2, 3, 4, 6}

Evaluating the function and show proper function notation:

5.) For f(x) = 7x + 2, find f(0).

$f(0) = 7(0) + 2$

$\boxed{f(0) = 2}$

6.) For $k(p) = -\frac{1}{5}p + 7$, find k(10).

$k(10) = -\frac{1}{5}(10) + 7$

$\boxed{k(10) = 5}$

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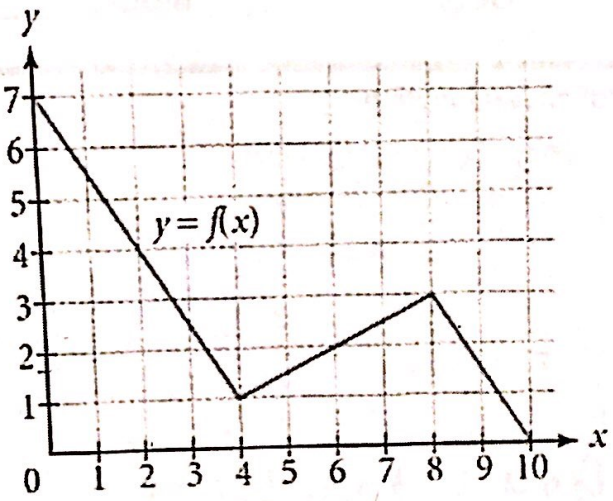
7.) Evaluate the function for the given values:



a. f(6) = 2

b. f(2) = 4

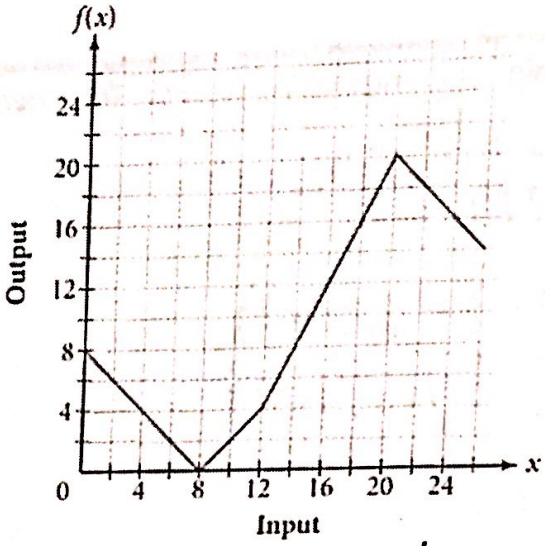
c. f(0) = 7

d. f(3) = 2.5 or 7 or 8.5

e. f(10) = 0

f. f(8) = 3 or 2.5

8.) Evaluate the function for the given values:



a. f(8) = 0

b. f(12) = 4

c. f(18) = 16

d. f(22) = 18

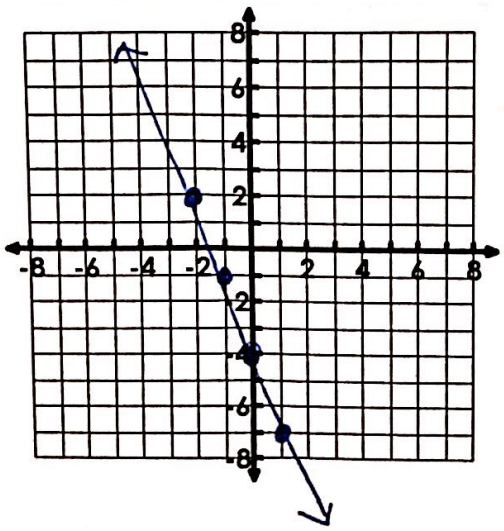
e. f(20) = 20

f. f(16) = 12

Graph the linear equation using a table of value. Use – 2, - 1, 0, 1, 2 as your input values.

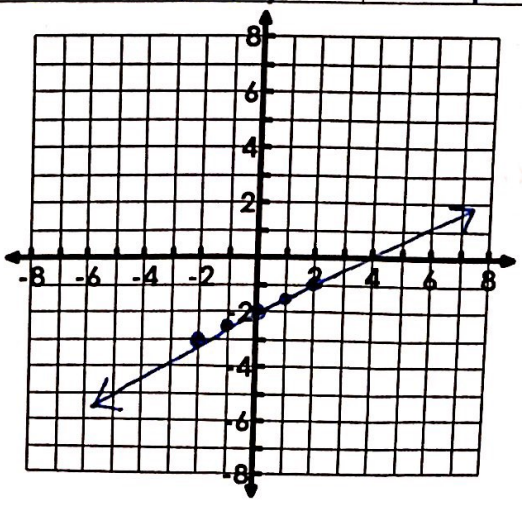
9.) $g(x) = -3x - 4$

x (Input)		y (Output)
-2	-3(-2)-4	2
-1	-3(-1)-4	-1
0	-3(0)-4	-4
1	-3(1)-4	-7
2	-3(2)-4	-10



10.) $h(x) = \frac{1}{2}x - 2$

x (Input)		y (Output)
-2	1/2(-2)-2	-3
-1	1/2(-1)-2	-2.5
0	1/2(0)-2	-2
1	1/2(1)-2	-1.5
2	1/2(2)-2	-1



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