

Learning Target - I can evaluate a function.

1 Evaluate $f(x) = 4x - 3$ for $f(-4)$. (1 point)

$$f(-4) = 4(-4) - 3$$

$$-16 - 3 = \boxed{-19}$$

Learning Target - I can determine whether an ordered pair is a solution to the function or not.

2. For the following input/output table, determine which of the following ordered pairs are solutions to the function $f(x) = 1/4 x - 6$. Write YES or NO for each one. (1 point each)

x	$f(x)$	$f(x) = 1/4 x - 6$ Show work here.	YES or NO
-8	-10	$f(-8) = \frac{1}{4}(-8) - 6 = -8$	No
0	-6	$f(0) = \frac{1}{4}(0) - 6 = -6$	Yes
4	-4	$f(4) = \frac{1}{4}(4) - 6 = -5$	No
8	-1	$f(8) = \frac{1}{4}(8) - 6 = -4$	No

3)

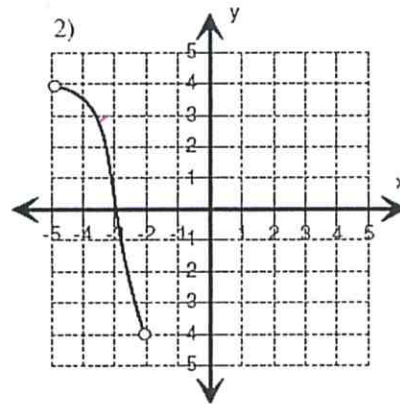
$\{(-3, 4), (1, 7), (-3, 3), (-3, 7)\}$

DOMAIN: $\{-3, 1\}$

RANGE: $\{3, 4, 7\}$

FUNCTION: YES or NO

Reason: Domain repeats (-3)



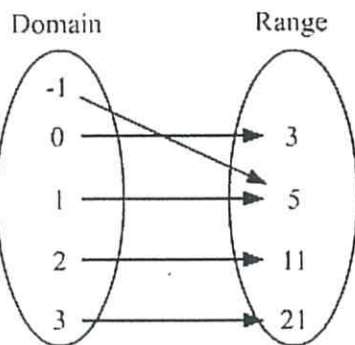
Domain: $(-5, -2)$

Range: $(-4, 4)$

FUNCTION: YES or NO

Reason: Passes VLT

4)

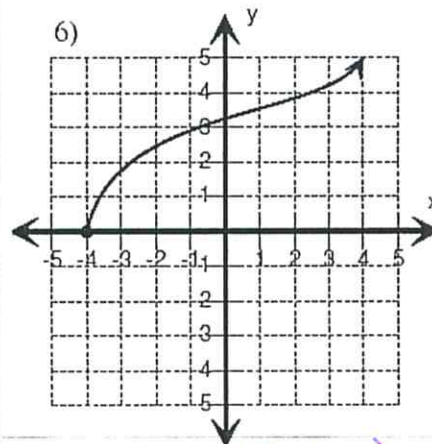


Domain: $\{-1, 0, 1, 2, 3\}$

Range: $\{3, 5, 11, 21\}$

FUNCTION: YES or NO

Reason: Domain Doesn't Repeat



Domain: $[-4, \infty)$

Range: $[0, \infty)$

FUNCTION: YES or NO

Reason: Passes VLT

Learning Target - I can relate the domain of a function to measurable relationships.

- 8) Given a function $p(s)$, where p is the **perimeter** of a square and s is the side measurement, choose all of the appropriate domain values. Circle ALL that apply. Explain the reason for your answer. (3 points)

a) $2/3$

b) -10

c) $-1/4$

d) 5.6

e) -8

f) 6

Explain:

Side measurement must be a positive number.

Learning Target: I can explain the vertical line test using domain and range.

9. Part 1: Explain how the vertical line test determines if a relation is a function. Use the terms **domain** and **range** in your explanation. (2 points)

VLT shows that domain repeats if it touches in 2 or more places. If a relation fails VLT, it is not a function. Range can repeat in a function.

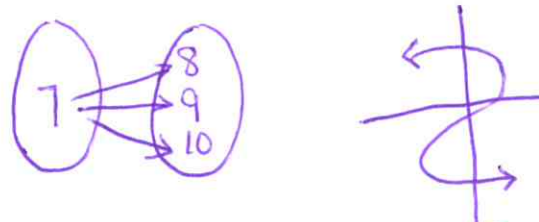
- Part 2: Provide an example of a relation that is a function and an example of a relation that is not a function. You can use a mapping diagram, set of ordered pairs or a graph. (1 point each)

Function



$\{(1,2)(3,4)(5,6)(7,8)\}$

Not a Function



$\{(2,3)(2,4)(2,5)(2,6)\}$

Learning Targets: I can write an equation in function notation.

I can create a table of values and graph the equation that represents a function.

10) Graph the function: $y = 2x - 1$

Part 1: Write the function in function notation: $f(x) = 2x - 1$. (1 point)

Part 2: Create a table of values with at least 5 values for the domain (3 points).

DOMAIN (x)	FUNCTION $y = 2x - 1$	ORDERED PAIRS
-2	$2(-2) - 1 = -4 - 1 = -5$	$(-2, -5)$
-1	$2(-1) - 1 = -2 - 1 = -3$	$(-1, -3)$
0	$2(0) - 1 = 0 - 1 = -1$	$(0, -1)$
1	$2(1) - 1 = 2 - 1 = 1$	$(1, 1)$
2	$2(2) - 1 = 4 - 1 = 3$	$(2, 3)$
3	$2(3) - 1 = 6 - 1 = 5$	$(3, 5)$

Graph the function. (3 points)

