

Name Key Date _____ Pd _____

Unit B: Functions Study Guide

1. What is

A. C

7. Using the chart below, explain if this is a function.

Input	-2	-1	0	1	2
Output	0	1	2	3	4

Yes, no x-values repeat!!

8. Given $f(x) = 2x + 6$ find $f(4)$ (plug in 4 to solve for $f(x)$)

$$f(x) = 2(4) + 6$$

$$f(x) = 8 + 6$$

$$f(x) = 14$$

9. Given $f(x) = -4x$ find $f(10)$

$$f(x) = -4(10)$$

$$f(x) = -40$$

10. Given the following ordered pairs, list the domain: (x-values)

$\{(2,3), (2,4), (3,5), (5,7), (8,10)\}$

$\{2, 2, 3, 5, 8\}$

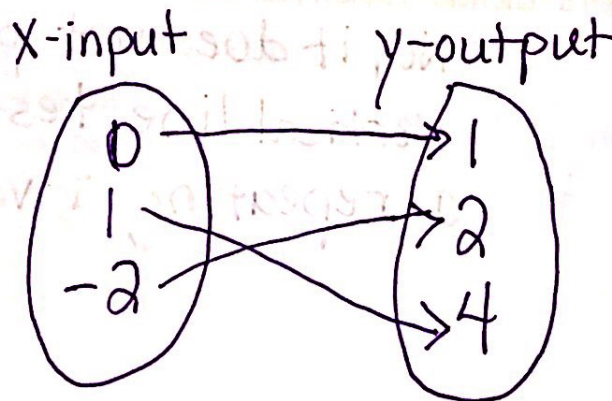
11. Given the following ordered pairs, list the range: (y-values)

$\{(2,3), (2,4), (3,5), (5,7), (8,10)\}$

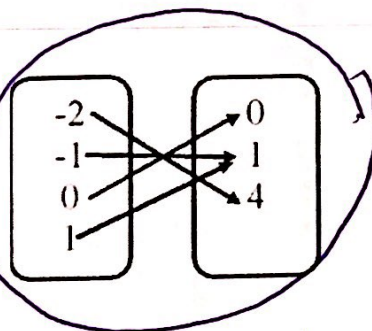
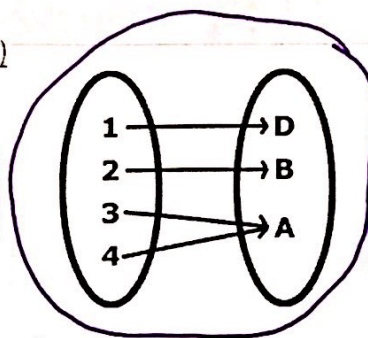
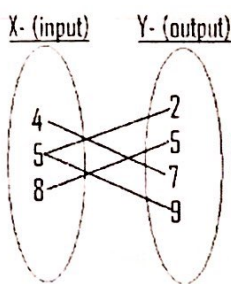
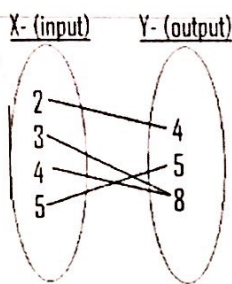
$\{3, 4, 5, 7, 10\}$

12. Given the ordered pairs $(1,4)$, $(-2, 2)$ and $(0,1)$, create a map to determine whether the data is a function or not. Explain why.

Yes, no x-values repeat.



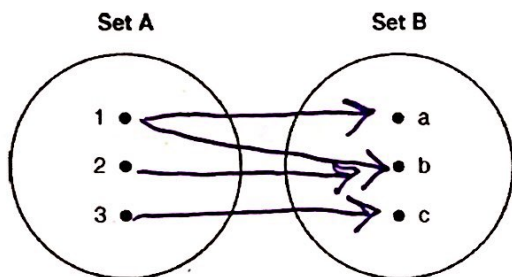
13. Circle the following maps that are functions:



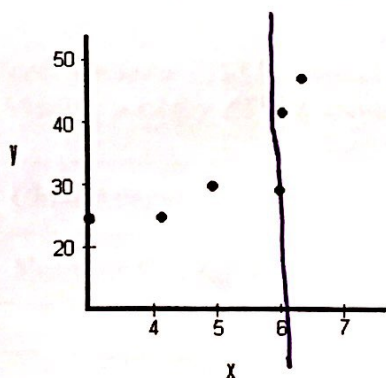
14. Explain how you know if a map is showing a function.

if no x-value has more than one y-value
it is a function

15. Given the following diagram, draw a mapping that is a relation and NOT a function.



16. Given the graph below, explain if the scatter plot is a function.



yes because it passes
the vertical line test

17. Given the table below, explain if this is a function or not.

Temperature Setting (x)	Actual Oven Temperature (y)
200°	170°
250°	195°
300°	220°
350°	245°
400°	270°

yes, no x-value repeats