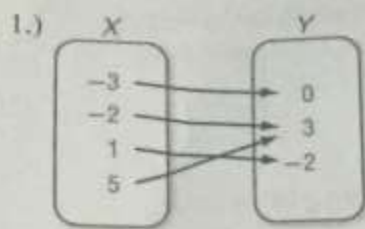


Lesson 10: Function Notation Worksheet
 Determine whether each relation is a function.

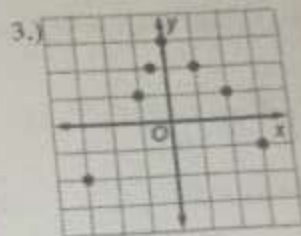


Yes

2.)

x	y
1	-5
-4	3
7	6
1	-2

No



Yes

4.) $\{(1, 4), (2, -2), (3, -6), (-6, 3), (-3, 6)\}$

Yes

5.) $\{(6, -4), (2, -4), (-4, 2), (4, 6), (2, 6)\}$

No

6.) $x = -2$

No

7.) $y = 2$

Yes

8.) State the domain of the relation $\{(-2, 5), (0, -1), (-1, 4), (-1, 5)\}$.

-2, -1, 0

9.) State the range of the relation $\{(-2, 5), (0, -1), (-1, 4), (-1, 5)\}$.

-1, 4, 5

10.) Your mom put \$40 on your ID card at the beginning of the semester for lunch. Every day you purchase lunch for \$3.75. Let $x = \#$ of lunches purchased. Let $y = \$$ left on card. What is the domain for this scenario?

A.) All Real Numbers

B.) 10 Lunches

C.) 0 to 10 Lunches

D.) 0 to 40 Dollars

11.) Explain your reasoning for #10.

If $f(x) = 2x - 6$ and $g(x) = x - 2x^2$, find each value.

12.) $f(2)$

-2

13.) $f(-\frac{3}{2})$

-7

14.) $g(-1)$

-3

15.) $f(7) - 9$

-1

16.) $g(-3) + 13$

-8

17.) $f(h+9)$

$2h + 12$

18.) $g(3)$

-15

19.) $g(4) + 2$

-26

20.) Many cell phones have a text messaging option in addition to regular cell phone service. The function for the monthly cost of text messaging service from No-line Wireless Company is $f(x) = 0.10x + 2$, where x is the number of text messages that are sent. Find $f(10)$ and $f(30)$, the cost of 10 text messages in a month and the cost of 30 text messages in a month.

$f(10) = \$3$

$f(30) = \$5$

21.) Hunter just received a \$40 paycheck from his new job. He spends some of it buying music online and saves the rest in a bank account. His savings is given by $(m) = 40 - 1.25m$, where m is the number of songs he downloads at \$1.25 per song.

a.) How many songs can Hunter buy if he wants to save \$30?

8 songs

b.) Using this scenario from above, what does $F(5)$ represent?

The amount in his savings after purchasing 5 songs