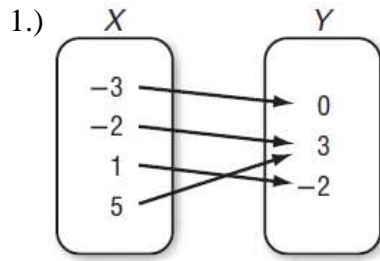


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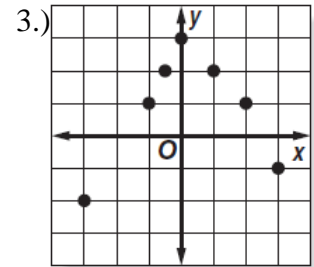
Lesson 10: Function Notation Worksheet

Determine whether each relation is a function.



2.)

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



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

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

6.) $x = -2$

7.) $y = 2$

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

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

_____ 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 of 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.) $f(2)$

13.) $f\left(-\frac{1}{2}\right)$

14.) $g(-1)$

15.) $f(7) - 9$

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

17.) $f(h + 9)$

18.) $g(3)$

19.) $g(4) + 2$

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.

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?

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