

7th Grade
April 13, 2021

Today we will:

-Finish notes and review HW

-7L: Do some examples together of function/not a function

-Begin classwork/HW



HOMWORK:

Skills Practice WS

Video notes

New ALEKS assignment due next Monday night



4. Mariah spent \$22.50 downloading songs to her digital music player from an online music store for \$0.90 each.

- a. Identify the independent and dependent variables. Then write a function to represent the total cost of any number of songs.
- b. Use the function to determine the number of songs that Mariah downloaded.

1 a. independent: how many songs
dependent: cost

2

Words	total cost = cost per song times the number of songs
Function	$C(s) = 0.90 \cdot s$

3 The function is $C(s) = 0.9s$

4 b. $C(s) = 0.9s$ Write the function.
 $22.5 = 0.9s$ Substitute 22.5 for $c(s)$.
 $\frac{22.5}{0.9} = \frac{0.9s}{0.9}$ Divide each side by 0.9.

5 So, Mariah downloaded 25 songs.

Task #1: Check completed notes/HW and put in notebook if it is not already.

9-1 pg387, April 13

Guided Practice

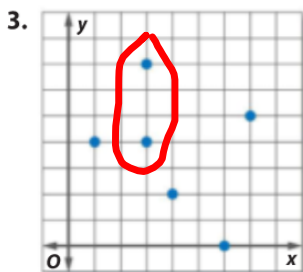
Determine whether each relation is a function. Explain. (Examples 1 and 2)

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

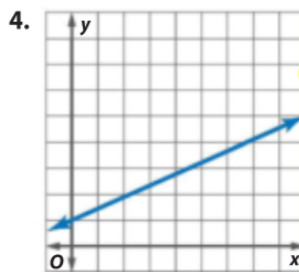
Yes--no x's repeat.

x	1	3	8	7	3
y	4	2	9	6	4

No- one of the x's (the 3) repeats.



No-2 of the points are "stacked," so this graph fails the vertical line test.



Yes-it passes the vertical line test.

If $f(x) = 6x - 4$, find each function value. (Example 3)

5. $f(3) \quad 6 \cdot 3 - 4 = 14$ 6. $f(-5) \quad 6 \cdot (-5) - 4 = -34$ 7. $f(8) \quad 6 \cdot 8 - 4 = 44$ 8. $f(-9) \quad 6 \cdot (-9) - 4 = -58$

9. The Milligan family spent \$215 to have their family portrait taken. The portrait package they would like to purchase costs \$125. In addition, the photographer charges a \$15 sitting fee per person in the portrait. (Example 4)


a. Identify the independent and dependent variables. Then write a function to represent the total cost of any number of people in the portrait.

b. Use the equation to find the number of people in the portrait. **6 people**

9a. Since the total cost depends on the number of people, the total cost c is the dependent variable and the number of people p is the independent variable; $c(p) = 125 + 15p$.

$$\begin{array}{r}
 215 = 125 + 15p \\
 -125 \quad -125 \\
 \hline
 90 = 15p \\
 \frac{90}{15} = \frac{15p}{15} \\
 6 = p
 \end{array}$$




 Name _____
 CLASSWORK Unit ____ Lesson ____ Due Date _____

Lesson 1 Skills Practice

Functions

Determine whether each relation is a function. Explain.

1. $\{(3, -8), (3, 2), (6, -1), (2, 2)\}$ |

2. $\{(0, 1), (-4, -3), (-3, 6), (3, 6)\}$

3. $\{(-6, 3), (2, -2), (0, 8), (1, 1)\}$

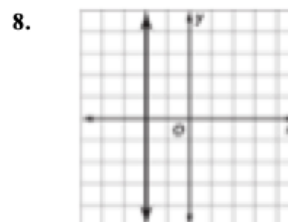
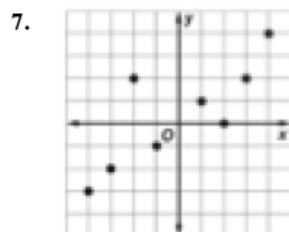
4. $\{(1, 8), (-6, 21), (-11, 21), (-3, 11), (0, 21)\}$

5.

x	1	-3	8	-8	20
y	2	6	6	5	11

6.

x	-1.2	1.1	1.7	-1.2	1.0
y	2.8	2.3	-2.4	2.3	2.6



If $f(x) = 4x - 2$, find each function value.

9. $f(3)$

10. $f(9)$

11. $f(-2)$

12. $f(-10)$

If $g(x) = 3x + 6$, find each function value.

13. $g(2)$

14. $g(7)$

15. $g(-4)$

16. $g(0)$