

7th Grade  
April 14, 2021

Today we will:

- Review yesterday's WS and video notes
- Take some in-class notes
- Begin HW



HOMEWORK:

Pg 393 WS

ALEKS time and topics  
assignment due Monday  
night



Check completed notes/HW and put in binder if it is not already.

9-1 Skills Practice WS, April 14

## Lesson 1 Skills Practice

### Functions

Determine whether each relation is a function. Explain.

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

No-2 x's (the 3's) repeat

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

Yes-no x's repeat

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

Yes-no x's repeat

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

Yes-no x's repeat

5.

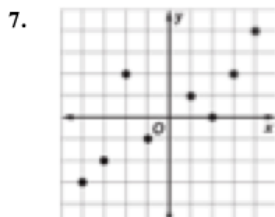
x	1	-3	8	-8	20
y	2	6	6	5	11

Yes-no x's repeat

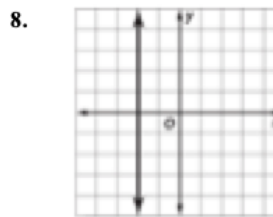
6.

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

No-2 x's (the -1.2's) repeat



Yes-no x's repeat (no points are stacked)



No- ALL the points have the same x! Vertical lines are NEVER a function.

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

9.  $f(3)$

$4 \cdot 3 - 2 = 10$

10.  $f(9)$

$4 \cdot 9 - 2 = 34$

11.  $f(-2)$

$4 \cdot (-2) - 2$   
 $= -8 - 2 =$   
 $-10$

12.  $f(-10)$

$4 \cdot (-10) - 2$   
 $= -40 - 2 =$   
 $-42$

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

13.  $g(2)$

$3 \cdot 2 + 6 = 12$

14.  $g(7)$

$3 \cdot 7 + 6 = 27$

15.  $g(-4)$

$3 \cdot (-4) + 6$   
 $= -12 + 6$   
 $= -6$

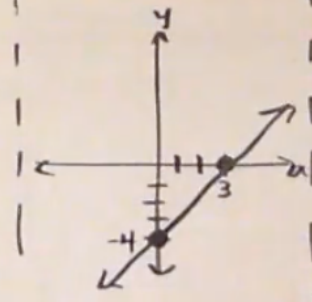
16.  $g(0)$

$3 \cdot 0 + 6 = 6$

Check completed notes/HW and put in notebook if it is not already.

Representations of Linear Functions Video Notes,  
Ch9 Lesson 2

<p><u>X-intercept</u></p> <p>Where the function crosses the x-axis (x, 0)</p> <p>How do you find it? Set y = 0 and solve for x.</p>	<p>Standard Form</p> <p><math>Ax + By = C</math></p>	<p><u>y-intercept</u></p> <p>Where the function crosses the y-axis (0, y)</p> <p>How do you find it? Set x = 0 and solve for y.</p>
<p>Finding X &amp; Y Intercepts</p>		

<p><u>x-int.</u></p> <p>Example:</p> <p><math>4x - 3y = 12</math></p> <p>Put 0 in for y.</p> <p><math>4x - 3(0) = 12</math></p> <p><math>\frac{4x}{4} = \frac{12}{4}</math></p> <p><math>x = 3</math></p> <p><span style="border: 1px solid black; padding: 2px;">(3, 0)</span></p>		<p><u>y-int.</u></p> <p>Example:</p> <p><math>4x - 3y = 12</math></p> <p>Put 0 in for x.</p> <p><math>4(0) - 3y = 12</math></p> <p><math>\frac{-3y}{-3} = \frac{12}{-3}</math></p> <p><math>y = -4</math></p> <p><span style="border: 1px solid black; padding: 2px;">(0, -4)</span></p>
<p>Finding X &amp; Y Intercepts</p>		

Table

x	y
-3	-8
0	-4
3	0
6	4

↑ x-intercept
← y-intercept

Finding X and Y Intercepts

## More notes to write directly into your binder:

9-2  
April 14

### Finding Solutions and Graphing Functions:

1. We can use a table to find possible solutions. Choose some x's and find their y's by following the rule.

$$y = x + 7$$

x	$y = x + 7$	y
1	$y = 1 + 7$	8
2	$y = 2 + 7$	9
3	$y = 3 + 7$	10
4	$y = 4 + 7$	11

### Solutions

(1, 8)

(2, 9)

(3, 10)

(4, 11)

2. We can also draw a graph to find ALL solutions. The easiest way to graph a function is to find its intercepts. Set  $y=0$  to find the x-intercept. Set  $x=0$  to find the y-intercept.

$$y = 2x + 4$$

Find x-int.

$$\text{Set } y = 0$$

$$0 = 2x + 4$$

$$\begin{array}{r} -4 \\ -4 \\ \hline \end{array}$$

$$\frac{-4}{2} = \frac{2x}{2}$$

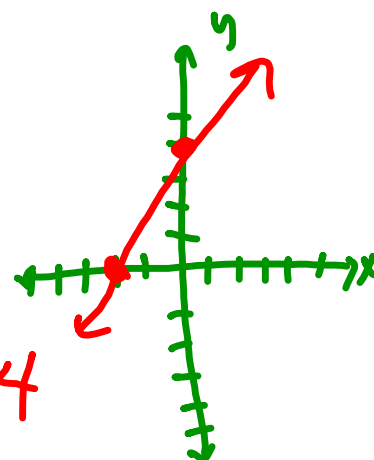
$$-2 = x$$

Find y-int.

$$\text{Set } x = 0$$

$$y = 2 \cdot 0 + 4$$

$$y = 4$$







**HOMEWORK**

Name \_\_\_\_\_  
 Unit \_\_\_\_\_ Lesson \_\_\_\_\_ Due Date \_\_\_\_\_

Go online for Step-by-Step Solutions



Copy and complete each table. Use the results to write four ordered pair solutions of the given function. (Example 1)

13.  $y = x - 2$

x	$y = x - 2$	y
-1	$y = (-1) - 2$	-3
0	$y = (0) - 2$	
1		
2		

- (     ,     )
- (     ,     )
- (     ,     )
- (     ,     )

15.  $y = 5x + 1$

x	$y = 5x + 1$	y
-2		
-1		
0		
1		

- (     ,     )
- (     ,     )
- (     ,     )
- (     ,     )

Find four solutions of each function. Write the solutions as ordered pairs. (Example 1)

17.  $y = 8x$

19.  $y = x + 7$

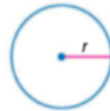
21.  $y = 2x + 5$

23.  $x + y = -3$

17. (     ,     ) 19. (     ,     ) 21. (     ,     ) 23. (     ,     )
- (     ,     ) (     ,     ) (     ,     ) (     ,     )
- (     ,     ) (     ,     ) (     ,     ) (     ,     )
- (     ,     ) (     ,     ) (     ,     ) (     ,     )

\*Hint\* Choose any 4 x's, then find their y's.

25. The circumference of a circle C with a radius of r units is approximately given by the linear equation  $C \approx 6.3r$ . Find two solutions of this function. Explain each solution. (Example 2)



\*Hint\* Choose any 2 r's, then find C for each.

Graph each function. (Example 3)

27.  $y = 5x$

29.  $y = x + 4$

31.  $y = 2x + 2$

33.  $x + y = -6$

