Compare Linear Functions

Grade 5 Algebra Worksheet
Date:_____   Name:_____

1. Use the rule $y = 2x - 3$ to complete the table below:

Input, x			2		4	5	7	8
Output, y	-3	-1		3				

2. Find a rule. Complete the table.

Input, x	3	4	5	6	8	10
Output, y	5	6	7	8		12

$y = x + \underline{\quad}$

Input, x	5	8	9		12	13
Output, y	12			17	19	

$y = x + \underline{\quad}$

Input, x	-2	-1	0	1		6
Output, y	-1	0			6	7

$y = x + \underline{\quad}$

3. Use the rule $y = 3x + 2$ to complete the table below:

Input, x			5		2	1	0	-1
Output, y	32	20		11				

4. Solve for y using each value of x given below, where $y = 5x - 6$:
   a. $x = 3$; _____   b. $x = 8$; _____   c. $x = 10$; _____

5. Solve for y using each value of x given below, where $y = 3x - 10$:
   a. $x = 4$; _____   b. $x = 6$; _____   c. $x = 0$; _____

6. Write an equation which represents the rule:

   Multiply by 5 and add 14.   **Solution:**

7. Write an equation which represents the rule:

   Divide by 4 and subtract 3.   **Solution:**

8. Explain the rule that the equation $y = 3x - 7$ represents.

   Solution:

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Grade 5 Algebra Answer Sheet

1. Use the rule $y = 2x - 3$ to complete the table below:

Input, x	0	1	2	3	4	5	7	8
Output, y	-3	-1	1	3	5	7	11	13

2. Find a rule. Complete the table.

Input, x	3	4	5	6	8	10
Output, y	5	6	7	8	10	12

y = x + **2**

Input, x	5	8	9	10	12	13
Output, y	12	15	16	17	19	20

y = x + **7**

Input, x	-2	-1	0	1	5	6
Output, y	-1	0	1	2	6	7

y = x + **1**

3. Use the rule $y = 3x + 2$ to complete the table below:

Input, x	10	6	5	3	2	1	0	-1
Output, y	32	20	17	11	8	5	2	-1

4. Solve for y using each value of x given below, where $y = 5x - 6$:
   a. $x = 3$; **y = 9**   b. $x = 8$; **y = 34**   c. $x = 10$; **y = 44**

5. Solve for y using each value of x given below, where $y = 3x - 10$:
   a. $x = 4$; **y = 2**   b. $x = 6$; **y = 8**   c. $x = 0$; **y = −10**

6. Write an equation which represents the rule:

   Multiply by 5 and add 14.   **Solution:** $y = 5x + 14$

7. Write an equation which represents the rule:

   Divide by 4 and subtract 3.   **Solution:** $y = \dfrac{x}{4} - 3$

8. Explain the rule that the equation $y = 5x - 12$ represents.

   Solution:

   Multiply by 5 and subtract 12.