EXTRA PRACTICE: Linear Equations and Graphs

1) The following table shows the weight of a dog at various times. Is the dog gaining weight at a constant rate? If so, find the rate of change. If not, explain why not.

Age (years)	0	2	6	9	14
Weight (pounds)	12	17	27	36	51

For 2 – 6, find the slope using TWO DIFFERENT methods – the graph (drawing a slope triangle) and by using $\frac{y_2 - y_1}{x_2 - x_1}$.



7) Write down the coordinates of two points that would have a slope of **ZERO** if you connected them with a straight line.

8) Write down the coordinates of two points that would have an **UNDEFINED** SLOPE if you connected them with a straight line.

Write an equation of the line in slope-intercept form.

Graph both lines on the same coordinate plane.



14) Double check your answer for #12 by filling out this table for $y = \frac{1}{3}x + 5$. Make sure your numbers in the table match the graph.

Х	0	3	6	9
у				

15) Double check your answer for #13 by filling out this table for y = -5x. Make sure your numbers in the table match the
graph.x-2-1012

x	-2	-1	0	1	2
у					

- 13) $y = \frac{1}{4}x + 5$
- 14) y = 4x + 5

15)
$$y = -\frac{1}{4}x + 5$$
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- 16) y = -4x + 5 _____
- 17) y = x 5

18) y = -x - 5

If you want more extra practice with problems like the BACK of this worksheet (y = mx + b equations) I have an entire separate worksheet with more problems like this! Just ask me for it!