$\qquad$

## 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 $\frac{y_{2}-y_{1}}{x_{2}-x_{1}}$.

2) A and B
3) A and C
4) B and C

(For this section, when you use the formula, you must label the coordinates yourself)
5) D and E
6) $E$ and F
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.
9) line $a$
10) line b


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.

| $\mathbf{x}$ | 0 | 3 | 6 | 9 |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{y}$ |  |  |  |  |

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

| $\mathbf{x}$ | -2 | -1 | 0 | 1 | 2 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{y}$ |  |  |  |  |  |

Match the graphs to the equations. (3 points)





13) $y=\frac{1}{4} x+5$
14) $y=4 x+5$
15) $y=-\frac{1}{4} x+5$ $\qquad$
16) $y=-4 x+5$ $\qquad$
17) $y=x-5$
18) $y=-x-5$

$$
\begin{aligned}
& \quad * * * \text { If you want more extra practice with } \\
& \text { problems like the BACK of this worksheet ( } \mathrm{y}= \\
& \mathrm{mx}+\mathrm{b} \text { equations) I have an entire separate } \\
& \text { worksheet with more problems like this! Just } \\
& \text { ask me for it! }{ }^{* * *}
\end{aligned}
$$

