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Be lw $\mathbf{k}$
Week of $\qquad$ - $\qquad$

Monday

Name: $\qquad$
Period: $\qquad$

Friday

Algebra 1 Unit 3 Parallel and Perpendicular Lines
Practice - Parallel and Perpendicular Lines Day 1
Name Date Period $\qquad$

1. Given the graph:

A. What is the slope of the line? $\qquad$
B. What is the slope of a parallel line? $\qquad$
C. What is the equation of a line parallel and passes through the point $(0,2)$ ? $\qquad$
2. If given these two points from a linear function: $(-6,-4)$ and $(3,2)$
A. What is the slope of the line? $\qquad$
B. What is the slope of a parallel line? $\qquad$
C. What is the slope of a perpendicular line? $\qquad$
3. Show that $A B C D$ is a trapezoid. (Hint: In a trapezoid, exactly one pair of opposite sides is parallel).

4. Given the table:

| $x$ | -4 | 1 | 5 | 8 |
| :--- | :--- | :--- | :--- | :--- |
| $y$ | 7 | 2 | -10 | -19 |

A. What is the slope of the line? $\qquad$
B. What is the slope of a parallel line? $\qquad$
C. What is the slope of a perpendicular line? $\qquad$
5. Given the equation: $y=3$
A. Find the equation of the line that passes through the point $(1,2)$ that is parallel to the line.
B. Find the equation of the line that passes through the point $(-3,4)$ that is perpendicular to the line given.

Algebra I - Unit 3 Writing Equations of Parallel and Perpendicular Lines

## Practice - Equations of Parallel and Perpendicular Lines

Name
Date $\qquad$ Period $\qquad$
\#1-6. Tell whether each pair of lines are parallel, perpendicular, or neither.
$y=-7 x$

1. $y=-\frac{1}{7} x+5$
2. $\begin{aligned} & y=-2 x \\ & y-3=-2(x-4)\end{aligned}$
3. $\begin{aligned} & x+y=0 \\ & y=x+10\end{aligned}$
$y=6 x+16$
4. $y-6 x=-4$
5. $\begin{array}{r}4 x+5 y=-6 \\ -5 x+4 y=2\end{array}$
6. $y+1=-2 x$

## 7. Use the following equation for parts $\mathbf{A} \& B$.

$$
3 x-4 y=8
$$

A. Write an equation in slope-intercept form for the line that is parallel to the line and passes through the point $(0,4)$.
B. Write an equation in point-slope form for the line that is perpendicular to the line and passes through the point $(-6,5)$

## 8. Use the following equation for parts $\mathbf{A} \& B$.

$$
x=4
$$

A. Write an equation for the line parallel to the given line and passes through the point $(-3,2)$
B. Write an equation for the line perpendicular to the given line and passes through the point $(5,7)$

## Algebra I - Unit 3 Writing Equations of Parallel and Perpendicular Lines

9. Which describes a line passing through $(3,3)$ that is perpendicular to the line described by $y=\frac{3}{5} x+2$ ?
A. $y=\frac{5}{3} x-2$
B. $y=\frac{3}{5} x+\frac{6}{5}$
c.


10. Which table shows a linear relationship that is parallel to the equation $y=\frac{1}{2} x+3$ ?
A.

| $X$ | $Y$ |
| :---: | :---: |
| -4 | 3 |
| -2 | 2 |
| 0 | 1 |
| 2 | 0 |

B.

| $X$ | $Y$ |
| :---: | :---: |
| -6 | 0 |
| -2 | 2 |
| 0 | 3 |
| 4 | 5 |

C.

| $X$ | $Y$ |
| :---: | :---: |
| -4 | -5 |
| 2 | -2 |
| 8 | 1 |
| 10 | 2 |

D.

| $X$ | $Y$ |
| :---: | :---: |
| -6 | -11 |
| -3 | -5 |
| 0 | 1 |
| 3 | 7 |

11. What is the equation of the line that has a slope of 0 and passes through the point $(6,-8)$ ?
A. $x=6$
B. $y=6$
C. $x=-8$
D. $y=-8$
