

NAME \_\_\_\_\_ DATE \_\_\_\_\_ PER. \_\_\_\_\_

## PARALLEL &amp; PERPENDICULAR LINES

Tell whether the lines are parallel, perpendicular, or neither.

1. _____	$y = 4x + 5$ and $y = -\frac{1}{4}x + 4$
2. _____	$y = 5x + 3$ and $y = -5x + 8$
3. _____	$y = \frac{x}{3} - 4$ and $y = \frac{1}{3}x + 2$
4. _____	$y = x$ and $y = x + 2$
5. _____	$x = 2$ and $y = 9$

Determine if the following lines are parallel, perpendicular, or neither.

6. _____	$\overleftrightarrow{EF}$ and $\overleftrightarrow{GH}$ for $E(-2,3)$ , $F(6,1)$ , $G(6,4)$ , $H(2,5)$
7. _____	$\overleftrightarrow{JK}$ and $\overleftrightarrow{LM}$ for $J(4,3)$ , $K(5,-1)$ , $L(-2,4)$ , $M(3,-5)$
8. _____	$\overleftrightarrow{NP}$ and $\overleftrightarrow{QR}$ for $N(5,-3)$ , $P(0,4)$ , $Q(-3,-2)$ , $R(4,3)$
9. _____	$\overleftrightarrow{ST}$ and $\overleftrightarrow{VW}$ for $S(0,3)$ , $T(0,7)$ , $V(2,3)$ , $W(5,3)$

**Determine whether the lines are parallel, perpendicular, or neither.**

10. _____	$y = -2x + 5$ $y = -2x - 5$
11. _____	$y = 4x - 5$ $3x + 4y = 7$

**Write the equation of each line given the following information.**

12. _____	The line through $(-6, 4)$ with slope $\frac{2}{3}$ .
13. _____	The line through $(-1, -6)$ and $(-5, 2)$ .
14.	<p>Write the equation of the line parallel to the line below and that goes through the given point.</p> <p><math>(-6, 4); y = -\frac{3}{2}x + 2</math></p>
15.	<p>Write the equation of the line perpendicular to the line below and that goes through the given point.</p> <p><math>(-3, 1); y = \frac{1}{3}x + 2</math></p>