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Sketch the Graph of each equation and determine if the lines are parallel or perpendicular.

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


3. Write the equation, in Slope Intercept Form, of the line that would go through the point $(6,2)$ and would be parallel to the line $\mathbf{y}=\mathbf{- 5 x}-6$.
4. Write the equation, in Slope Intercept Form, of the line that would go through the point $(\mathbf{- 3}, \mathbf{5})$ and would be parallel to the line $\mathbf{3 x}+\mathbf{1 0} \mathbf{y}=\mathbf{2 0}$.
5. Write the equation, in Slope Intercept Form, of the line that would go through the point $(6,4)$ and would be perpendicular to the line $y=\frac{-8}{7} x+10$.
6. Write the equation, in Slope Intercept Form, of the line that would go through the point $(-8,10)$ and would be perpendicular to the line $-\mathbf{5 x}+\mathbf{8 y}=8$.
7. Determine if the two lines are parallel, perpendicular or just lines that intersect. You may need solve one of the equations for $y$ to determine the slope.

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7 x+4 y=12 \quad \text { and } \quad y=-\frac{7}{4} x+2
$$

