

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

1. $y = \frac{2}{3}x + 1$ and $y = \frac{2}{3}x - 7$

2. $y = \frac{5}{6}x - 6$ and $y = -\frac{6}{5}x - 6$

3. $y = \frac{2}{3}x + 6$ and $3x + 2y = -5$

4. $y = 3x - 8$ and $3x - y = -1$

5. $y = 4$ and $y = -4$

6. $y = -2$ and $x = 10$

7. Find the slope of a line perpendicular to the graph of $y = \frac{1}{5}x - 7$

8. Find the slope of a line parallel to the graph of $y = -3x - 7$

9. Find the slope of a line parallel to the graph of $y = -\frac{2}{3}x + \frac{3}{2}$

10. Find the slope of a line perpendicular to the graph of $y = \frac{2}{5}x - 2$

Write an equation for the line that is *perpendicular* to the given line and that passes through the given point.

11. $y = -5x + 9$; $(-5, 5)$

12. $y = 4x + 1$; $(12, -6)$

Write an equation for the line that is *parallel* to the given line and that passes through the given point.

13. $y = x - 3$; $(4, -1)$

14. $y = -4x + 5$; $(-1, 3)$