

**Way Cool Algebra**  
**PARALLEL AND PERPENDICULAR**

Do NOT Write on Worksheet  
**Writing Equations - Relations**

Without Graphing decide if the lines are Parallel, Perpendicular, or Neither. **Explain why.**

1) $y = 4x - 5 ; y = \frac{1}{4}x + 4$	2) $y = -5x - 8 ; y = 5x + 8$	3) $y = -\frac{3}{5}x + 2 ; y = -\frac{5}{3}x + 8$
4) $y = \frac{1}{3}x - 12 ; y = \frac{1}{3}x - 7$	5) $y = -6x ; y = \frac{1}{6}x + 8$	6) $3y - x = -12 ; 6y + 24 = 2x$
7) $y = 3x - 8 ; 3x - y = -1$	8) $3x + 2y = -10 ; y = \frac{2}{3}x + 6$	9) $y = -\frac{5}{2}x + 11 ; -5x + 2y = 20$
10) $9x + 3y = -12 ; 3x + 9y = 9$	11) $2x + y = 2 ; 6x + y = 4x - 9$	12) $3x - 5y = 15 ; -5x + 3y = 18$

**Way Cool Algebra**  
**PARALLEL AND PERPENDICULAR**

Do NOT Write on Worksheet  
**Writing Equations - Relations**

Without Graphing decide if the lines are Parallel, Perpendicular, or Neither. **Explain why.**

1) $y = 4x - 5 ; y = \frac{1}{4}x + 4$	2) $y = -5x - 8 ; y = 5x + 8$	3) $y = -\frac{3}{5}x + 2 ; y = -\frac{5}{3}x + 8$
4) $y = \frac{1}{3}x - 12 ; y = \frac{1}{3}x - 7$	5) $y = -6x ; y = \frac{1}{6}x + 8$	6) $3y - x = -12 ; 6y + 24 = 2x$
7) $y = 3x - 8 ; 3x - y = -1$	8) $3x + 2y = -10 ; y = \frac{2}{3}x + 6$	9) $y = -\frac{5}{2}x + 11 ; -5x + 2y = 20$
10) $9x + 3y = -12 ; 3x + 9y = 9$	11) $2x + y = 2 ; 6x + y = 4x - 9$	12) $3x - 5y = 15 ; -5x + 3y = 18$

**Way Cool Algebra**  
**PARALLEL AND PERPENDICULAR**

Do NOT Write on Worksheet  
**Writing Equations - Relations**

Without Graphing decide if the lines are Parallel, Perpendicular, or Neither. **Explain why.**

1) $y = 4x - 5 ; y = \frac{1}{4}x + 4$	2) $y = -5x - 8 ; y = 5x + 8$	3) $y = -\frac{3}{5}x + 2 ; y = -\frac{5}{3}x + 8$
4) $y = \frac{1}{3}x - 12 ; y = \frac{1}{3}x - 7$	5) $y = -6x ; y = \frac{1}{6}x + 8$	6) $3y - x = -12 ; 6y + 24 = 2x$
7) $y = 3x - 8 ; 3x - y = -1$	8) $3x + 2y = -10 ; y = \frac{2}{3}x + 6$	9) $y = -\frac{5}{2}x + 11 ; -5x + 2y = 20$
10) $9x + 3y = -12 ; 3x + 9y = 9$	11) $2x + y = 2 ; 6x + y = 4x - 9$	12) $3x - 5y = 15 ; -5x + 3y = 18$