

**Parallel and Perpendicular Lines Homework**

1. What is the slope of a line perpendicular to the line whose equation is  $y = 3x + 4$ ?

2. What is the slope of a line perpendicular to the line whose equation is  $y = -\frac{2}{3}x - 5$ ?

3. Which equation represents a line that is parallel to the line  $y = -4x + 5$ ?

- 1)  $y = -4x + 3$
- 2)  $y = -\frac{1}{4}x + 5$
- 3)  $y = \frac{1}{4}x + 3$
- 4)  $y = 4x + 5$

Show your work:

Explain your answer:

4. Which equation represents a line that is parallel to the line whose equation is  $2x - 3y = 9$ ?

- 1)  $y = \frac{2}{3}x - 4$
- 2)  $y = -\frac{2}{3}x + 4$
- 3)  $y = \frac{3}{2}x - 4$
- 4)  $y = -\frac{3}{2}x + 4$

Show your work:

Explain your answer:

5. Which line is perpendicular to the line whose equation is  $5y + 6 = -3x$ ?

- 1)  $y = -\frac{5}{3}x + 7$
- 2)  $y = \frac{5}{3}x + 7$
- 3)  $y = -\frac{3}{5}x + 7$
- 4)  $y = \frac{3}{5}x + 7$

Show your work:

Explain your answer: