

5F Perpendicular Lines

1. Are the following lines perpendicular?

$$3x - y - 2 = 0$$

$$x + 3y - 6 = 0$$

2. Are the following lines perpendicular?

$$y = \frac{1}{2}x$$

$$2x - y + 4 = 0$$

3. A line is perpendicular to the line $2y - x - 8 = 0$, and passes through the coordinate $(5,-7)$. Find the equation of the line.