**5F Perpendicular Lines**

1. Are the following lines perpendicular?

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

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

1. Are the following lines perpendicular?

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

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

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