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

1. $y = 6x - 2; (0,0)$

$m = 6$

$y = 6x$

2. $y = -\frac{7}{2}x + 6; (-4,-6)$ $m = -\frac{7}{2}$

$y + 6 = -\frac{7}{2}(x + 4)$

$y + 6 = -\frac{7}{2}x - 14$

$y = -\frac{7}{2}x - 20$

3. $y = -2x + 3; (-3,5)$ $m = -2$

$y - 5 = -2(x + 3)$

$y - 5 = -2x - 6$

$y = -2x - 1$

4. $y = -3x; (3,0)$ $m = -3$

$y - 0 = -3(x - 3)$

$y - 0 = -3x + 9$

$y = -3x + 9$

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

5. $y = 2x + 7; (0,0)$

$m = -\frac{1}{2}$

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

6. $y = -\frac{1}{3}x + 2; (4,2)$

$m = -\frac{1}{3}$

$m = 3$

$y - 2 = 3(x - 4)$

$y - 2 = 3x - 12$

$y = 3x - 10$

7. $3x + 5y = 7; (-1,2)$

$m = \frac{5}{3}$

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

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

$y = \frac{5}{3}x + \frac{5}{3} + 2$

$y = \frac{5}{3}x + \frac{11}{3}$

8. $4x - 2y = 9; (8,-2)$

$-4x \quad -4x$

$-2y = -4x + 9$

$m = \frac{1}{2}$

$y = 2x - \frac{9}{2}$

$y + 2 = -\frac{1}{2}(x - 8)$

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

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