6-3 Algebra
Equation of Lines in Slope intercept form ANSWERS

Remember that y = mx + b is the equation of a line in slope-intercept form.
A helpful equation to remember is that $y - y_1 = m(x - x_1)$.

$y = -3x + 14$ 1. Find the equation of the line, in slope intercept form, that goes through the point (2, 8) and has a slope of -3.

$y = \frac{1}{2}x - 1\frac{1}{2}$ 2. Find the equation of the line, in slope intercept form, that goes through the point (-1, -2) and has a slope of ½ .

$y = 2x + 4$ 3. Find the equation of the line, in slope intercept form, that goes through the point (2, 8) and (3, 10).

$y = 2x - 6$ 4. Find the equation of the line, in slope intercept form, that goes through the point (-1, -8) and (-3, -12).

$y = -5x + 4$ 5. Find the equation of the line, in slope intercept form, that goes through the point (0, 4) and has a slope of -5.

$y = x + 8$ 6. Find the equation of the line, in slope intercept form, that goes through the point (0, 8) and (2, 10).

$y = 8x + 12$ 7. Give the equation of the line, in slope intercept form, that is parallel to $y = 8x - 5$ and passes through the point (1, 20).

$y = 2x + 3$ 8. Give the equation of the line, in slope intercept form, that is parallel to $y = 2x - 1$ and passes through the point (3, 9).

$y = -\frac{1}{2}x + 9$ 9. Give the equation of the line, in slope intercept form, that is perpendicular to $y = 2x - 5$ and passes through the point (2, 8).

$y = -\frac{1}{4}x + 13$ 10. Give the equation of the line, in slope intercept form, that is perpendicular to $y = 4x - 5$ and passes through the point (4, 12).