Solving Point Slope for y results in Slope Intercept

$y = mx + b$

Solving an equation of a line in Point Slope for y, we get the Slope Intercept Form of a Line

$y + 3 = 4\,(x - 2)$

$y + 3 = 4x - 8$

$y = 4x - 11$

Notice the slope 4, is the coefficient of x. As we look at graphs, we see a pattern, the constant, –11, is where the graph crosses the y-axis – called the y-intercept

$$y = mx + b$$

Since this equation identifies the slope and the y-intercept, it's called the

Slope Intercept Form of a line