

Using Slope-Intercept Form in Story Problems

- 1) Define the variables
- 2) Write an equation to model the situation
- 3) Graph using the slope and intercept
- 4) Interpret what the slope represents
- 5) Interpret what the x and y intercepts represent

Example: Jack has written 30 pages of his novel. He plans to write 10 pages per week until he has completed his novel. Write an equation in slope-intercept form to represent this situation

x-variable = number of weeks

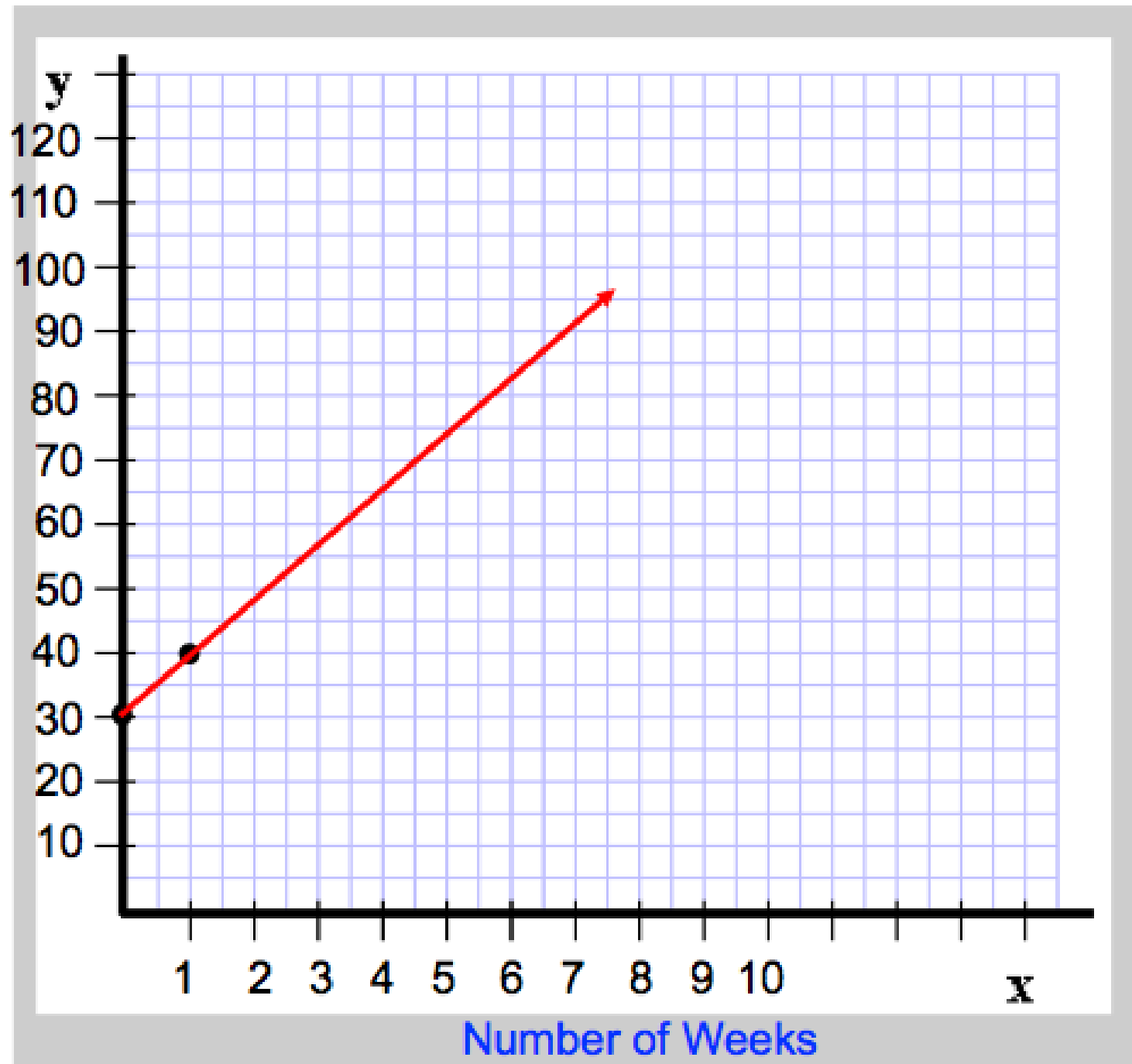
y-variable: number of pages that Jack has written

Equation: $y = 10x + 30$

slope (m) = 10

y-intercept: 30

Number of
Pages
Written



1) What does the slope represent?

The slope represents the number of pages (10) that Jack writes each week.

2) What does the y-intercept represent?

The y-intercept (0,30) is amount of pages Jack has written before he starts writing 10 pages per week.

3) What does the x-intercept represent?

In this story problem, a real-life x-intercept does not exist because the problem begins with Jack having already written 30 pages.