Chapter 9-4 to 9-7 Day 1 Review

1) Determine if this table represents a direct variation. If so, find the direct variation and explain.

X	# of games	2	4	6	7	12
Y	Cost $	$2.50	$5.00	$7.50	$8.75	$15.00

Yes, this is direct variation. The cost is $1.25 per game each time.

$\frac{\$2.50}{2} = \$1.25$ $\frac{7.50}{6} = \$1.25$

2) Write an equation that models this situation in #1.

$y = 1.25x$

3) State the slope and y-intercept for each equation.

a) $7x + y = 0$

$-7x \quad -7x$

$y = -7x + 0$

or

$y = -7x$

slope = $-7/1$ or -7

y-intercept = $(0, 0)$

b) $-4x + 3y = -3$

$+4x \quad +4x$

$\frac{3y}{3} = \frac{4x}{3} + \frac{-3}{3}$

$y = \frac{4}{3}x + -1$

slope = $4/3$

y-intercept = $(0, -1)$

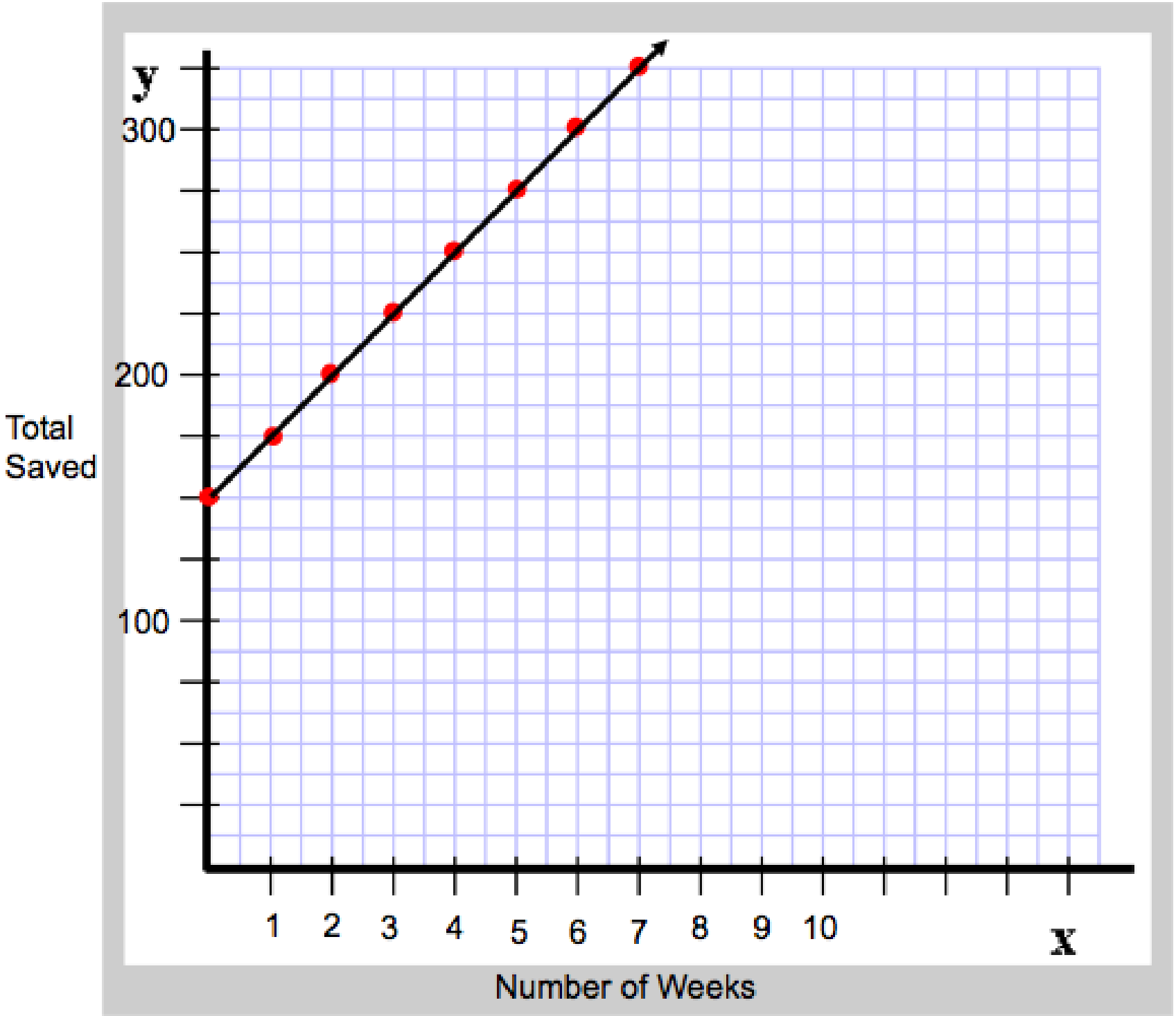
4) Joe has $150 in his savings account. He plans to save $25 per month going forward.
a) Define the variables and write an equation in slope-intercept form to model this situation.
b) Graph the equation.
c) Describe what the y-intercept and slope represent.

a) x = number of months
y = total savings

b) see graph on next page

y = 25x + 150

c) slope represents how much Joe is saving per month
y-intercept is the initial or starting amount in his savings


y
300
200
100
Total
Saved
1
2
3
4
5
6
7
8
9
10
x
Number of Weeks