

Day 2 - Real World Y-Intercepts - Notes

In a real world situation, the y-intercept represents the **starting value** or starting point. Determine the y-intercept for the following table:

A. How many pills were in the bottle to start?

Days Passed	Vitamins Remaining in Bottle
7	25
8	23
9	21
10	19

0 39
1 37
2 35
3 33
4 31
5 29
6 27

39 pills to start

$$y = mx + b$$

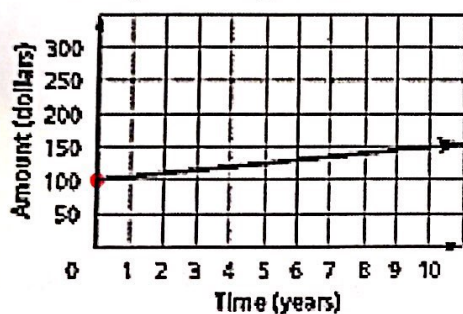
$$25 = -2(7) + b$$

$$25 = -14 + b$$

$$39 = b$$

B. The graph below shows Colby's saving account over time. Explain what the y-intercept means in context of the graph.

Colby's Savings Account



(0, 100)
years dollars

When Colby first started saving, she had \$100.

C. Alberto is saving for a new video game. After adding two weeks of his allowance to a savings account, he has \$105. After adding three more weeks of his allowance, his savings is now at \$150. Determine the y-intercept and explain what the y-intercept means in terms of the problem.

0	75
1	90
2 weeks	\$105
3	\$120
4	\$135
5 weeks	\$150

$$\frac{150 - 105}{5 - 2} = \frac{45}{3} = \$15 \text{ per week}$$

Alberto started with \$75.