A middle school student spends \$3 on a bag of candy bars and sells each candy bar for 0.25. There are 40 candy bars in the bag. The profit, P(x) of selling x candy bars is:

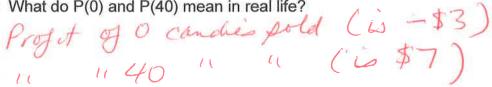
$$P(x) = 0.25x - 3$$

a) Calculate the following values:

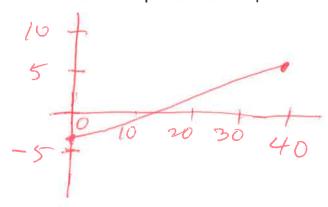
$$P(0) = 0.25(0) - 3 = -3$$

$$P(40) = 0.25(40) - 3 = 10 - 3 = 7$$

b) What do P(0) and P(40) mean in real life?



c) Sketch a graph using your data points. Show the scale on the x and y axes to show the relationship between the quantities.



d) What is the real-life domain of P(x)?

[0, 40] Can't sell less than O candue's

of {x/0≤x≤40}