Saving Money

Everyday on her way home from school, Jen uses $1 to buy a bag of chips. The chips cost $0.75, and she saves the remaining quarter in her change jar.

a. Jen buys 5 bags of chips per week. At this rate, how long will it take her to save $10.00?

b. Write an equation to show how much money, \( y \), Jen will save after any number of weeks, \( x \).

c. Create a graph to represent this relationship.

Mark is also trying to save money. He already has $3.00 saved and puts $1.00 per week away in his piggy bank. This can be represented by the equation \( y = x + 3 \).

d. Will Jen or Mark save $20.00 first? Justify your reasoning.

e. Imagine you have made a graph to represent the money Mark has saved. Explain why Mark’s line does not start at the origin and Jen’s line does start at the origin.