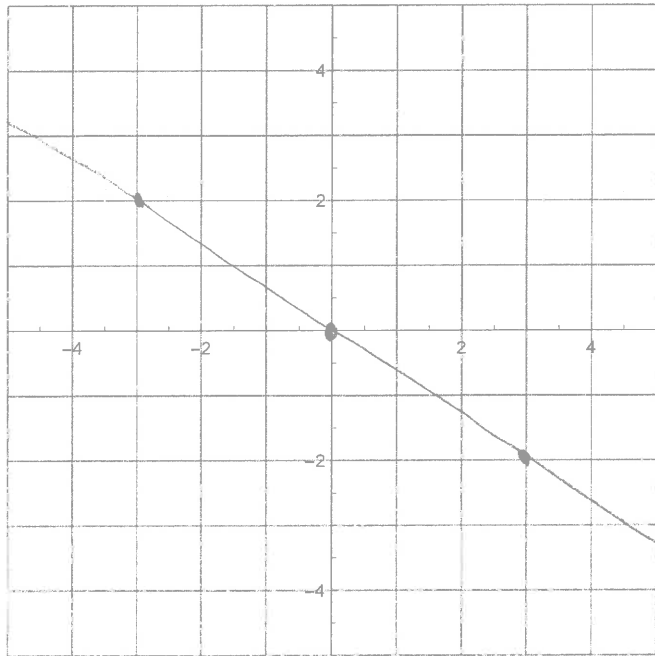Name:_____

Problem 1. *Graph the line* $2x + 3y = 0$.

$(0,0) , (-3,2)$

Problem 2. *In 2012, the estimated population in Ethiopia was 94 million people with a relative growth rate of 3.2%.*

(a) *Write an equation that models the population growth in Ethiopia, letting 2012 be year 0.*

(b) *Based on the model, what is the expected population in Ethiopia (to the nearest million) in 2025?*

(a) $P = 94 e^{0.032t}$ million

(b) $P(13) = 94 e^{0.032(13)} = 142$ million