1. In class you were asked to define a function of the form $y = mx + b$ so that its graph passes through the point (3,7) with a rate of change of 2.5. This figure shows one function that does this.

070126 One Pt & Rate.gcf

$$\begin{bmatrix} 3 \\ 7 \end{bmatrix}$$

Define a function in the form $y = mx + b$ so that its graph passes through the point (3,7) with a rate of change of 2.5.

$y = 2.5x + (7 + 2.5(-3))$

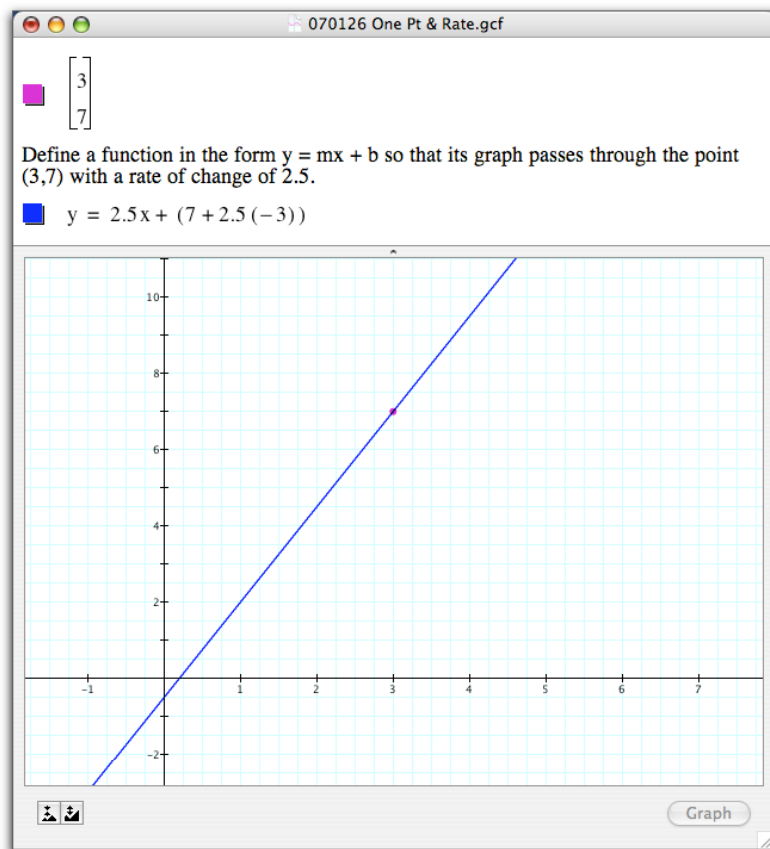a) What does 2.5 stand for in this figure?

b) What does -3 stand for in this figure?

c) What does 2.5(-3) stand for in this figure?

d) What does (7 + 2.5(-3)) stand for in this figure?

e) What does $2.5x + (7 + 2.5(-3))$ stand for in this figure?

2. Do the following for each of a-e. On Tuesday you will check your answers on your computer.

   Define a function in the form $y = mx + b$ so that its graph passes through

   a) The point (5,2) with a rate of change of 7.

   b) The point (-3, 4) with a rate of change of -2.

   c) The point (2.73,-5.15) with a rate of change of 7.26

   d) The point (-4.1,-6.8) with a rate of change of 8.6

   e) The point (-2,-1) with a rate of change of -4.2