Quiz 3

Read all directions carefully. You must show all work to receive credit. No notes, book, calculators, mp3 players or phones are allowed during this quiz. Write clearly and make sure to indicate your final answer.

1. Simplify

   (a)
   $$4 + (-2)(7 - 2) + 5 = 4 + (-2)(5) + 5 = 4 - 10 + 5 = -6 + 5 = -1.$$

   (b)
   $$\frac{2\left[6 - 3\left(-8 - 2\right)\right]}{4 + 8 \div 4} = \frac{2[6 - 3(-10)]}{4 + 2} = \frac{2[6 + 30]}{6} = \frac{2[36]}{6} = 2[6] = 12.$$
   .

2. (a) What is 6% of 65?

   There are multiple ways to do this. One is as follows:
   $$\frac{6}{100}65 = \frac{6(65)}{100} = \frac{3(65)}{50} = \frac{3(13)}{10} = \frac{39}{10} = 3.9$$

   Another way to do this is: 1% of 65 is 0.65, so 6% of 65 is $6(.65) = 3.9$.

   (b) Write 254% as a decimal.

   To write a percentage as a decimal you replace the percent sign with a $\frac{1}{100}$ and compute. This amounts to dividing 254 by 100, which is the same as moving the decimal two places to the left. Thus we get 254% as a decimal is 2.54.

(a) State the slope and y-intercept of the line $y = -\dfrac{3}{4}x + 3$.

The slope of the line is $-\dfrac{3}{4}$. The y-intercept of the line is 3.

(b) Sketch the graph of the equation on the coordinate system provided.

$$y = -\tfrac{3}{4}x + 3$$