Linear Relations Quiz Review

1. Take up any homework concerns.

2. Section 3.1
   a) independent vs. dependent
   b) p. 148 #10.

3. Section 3.2 p. 151 #1

4. Section 3.3
   a) p. 156 #13, 7
   b) First Differences
   c) p. 163 # 2 - 4.

5. Complete quiz the second half of class.

Section 3.1 - pg. 148

10. Antwan charges \$5/h, plus a flat fee of \$8, in his lawn-mowing business.

a) Describe the relation between earnings and hours using an equation.

b) Justify your choice for independent and dependent variables.

Section 3.2 p. 151 #1

1. Identify each relation as a direct or a partial variation. Support your answer using a table, a graph, and form of the equation.

a) $y = 2x$

b) $y = 2x + 3$

c) $y = 1 - x$

d) $y = 0.25x - 3.5$

e) $y = -\frac{1}{2}x$

f) $y = -\frac{2}{3}x + \frac{1}{6}$

Section 3.3 p. 156 #7

7. Determine the slope of the line that passes through each pair of points.

K **a)** (3, 5) and (0, 2)

b) (3, 3) and (−2, 2)

c) (21, −10) and (20, 24)

d) (4, 0) and (6, 18)

e) (1, −1) and (2, 2)

f) (−3, −8) and (−5, −6)

Section 3.3 p. 156 #13

13. The amount of money in Alexander's account is $y = 4000 - 70x$, where y is the amount in dollars and x is the time in weeks.

a) Which variable is independent and which is dependent?

b) How do you know the relation is linear?

c) Determine the rate of change of the money in Alexander's account.

d) What does the rate of change mean?

e) How does the rate of change relate to the equation?

f) When will Alexander's account be empty?

Section 3.3 p. 163 #3a

3. Determine the rate of change in each relation. Is this relation linear?

a)

x	y
3	1
6	11
9	21