**Lab for Section 6.8** Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Use good notation and show appropriate work. Write solutions to application problems in* ***complete sentences***.

1. (a) 2.4% of 730 (b) What percent of 53 is 40? (c) 18% of what number is 55.8?

2. (a) Find the *x*-intercept and *y*-intercept for 3. Graph the line passing through points

3*x* – 7*y* = 21. (4, –1) and (–3,5).

**** *x*-intercept: 

*y*-intercept:

(b) Use the intercepts to graph 3*x* – 7*y* = 21.

****

(b) Find the *x*-intercept and *y*-intercept.

4. Use the slope and *y*-intercept to graph 4*x* + 3*y* = 9.

****

5. Graph each inequality.

(a) *x* < –2 (b) *y* ≥ 3

 

(c) *y* > –*x* – 3 (d) 2*x* – 5*y* + 15 ≥ 0

**** ****

6. Pat’s 401k has two investment options. One has an expected return of 3%and the other has an expected return of 7%. Pat may invest up to $16,000 in the 401k.

(a) Write an inequality that represents Pat’s investment options. Let *x* represent the amount to be invested at 3% and *y* represent the amount to be invested at 7%. *(Note this asks for investment options, not returns.)*

(b) Use the inequality to graph Pat’s investment options.



(c) State the *returns* on at least three investment options that Pat has.