Name

Advanced Algebra

Unit 6: Assignment #17 Linear Programming Review for Test

The test is clearly two parts. Part one is like problems from this review and Part 2 is dealing with matricies.

1) Solve
$$|3x - 18| \le 54$$

2)
$$|2x + 20| \ge 532$$

3) At what point do the boundary lines for the following system of inequalities intersect?

$$\begin{cases} 2x + 8y < 4x \\ x - y > -3 \end{cases}$$

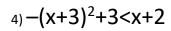
Α.	В.	C.	D.
(-4, 1)	(2,5)	(-6,18)	(4, 5)

For the following 2 problems first make a graph showing the parabola and the line. Then use your graph to interpret the answer that you are looking for.

3)
$$-x^2+6x-7 > -x+1$$



Answer to where $-x^2+6x-7 > -x+1$



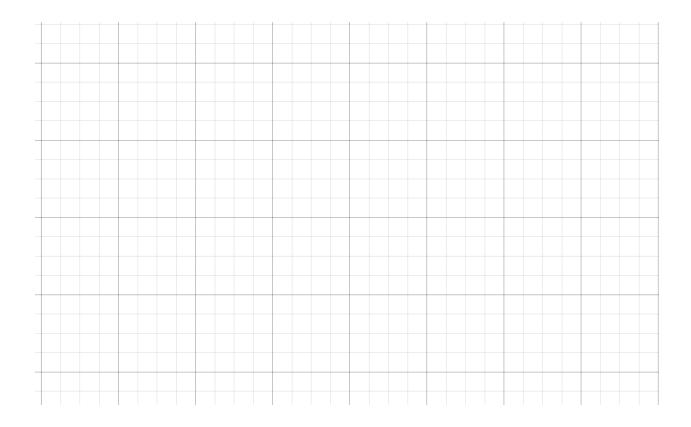


Answers to where

 $-(x+3)^2+3< x+2$

5) Shade to find the correct feasible region.

$$\begin{cases} y \ge x^2 - 6x + 7 \\ y \le |x - 2| \end{cases}$$



6) What is the intersection of $\begin{cases} x + y \le 9 \\ 2x - y \ge 3 \end{cases}$

Graph and shade the feasible region.

Desktops

7) I am selling computers. Desktops and laptops.

I am in charge of inventory at Best buy. I need to make sure to maximize what I can hold in the store. I will be stocking laptops and desktops. Each laptop costs \$200 and each desktop costs \$500. I have \$48,000 to spend in total. I have room for 200 items all together. I have to have in stock at least 50 laptops or I get in trouble. I don't want to get in trouble 3

Laptops