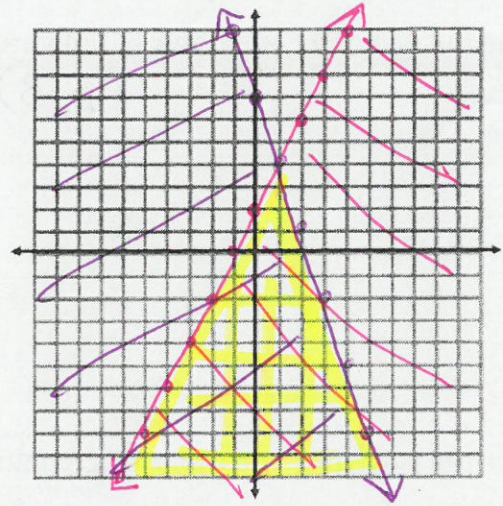


1. Solve the system of inequalities equations graphically.

$$y \leq -3x + 7$$

$$-2x + y \leq 2$$



2. For each of following points, circle if the point is either a solution or not a solution for the system of inequalities in problem 1.

a. $(-1, 3)$ Solution Not a Solution

b. $(0, 2)$ Solution Not a Solution

c. $(2, -3)$ Solution Not a Solution

3. Use quadratic formula to solve for the x-intercepts $y = x^2 + 10x + 28$

$$x = \frac{-5 \pm 2\sqrt{3}}{2} \text{ or } x = \frac{-10 \pm 2\sqrt{3}}{2}$$

4. Use the chart below to complete the following tasks.

- a. Write a linear equation in slope-intercept form that shows the relationship between age and blood pressure.

$$y = \frac{7}{5}x + 73$$

Age	Blood Pressure
25	108
35	122
45	136

- b. Use your equation to predict the blood pressure of a person who is 60 years old.

$$157$$

- c. Use your equation to estimate the age of a person with a blood pressure of 100.

$$\approx 19.29$$

Use the following equations to complete problems 5-7.

$$x - 3y = -6$$

$$4x - 2y = 6$$

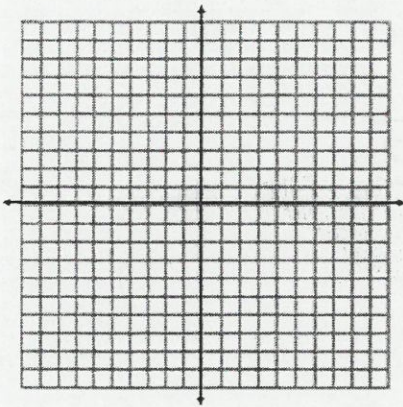
5. Solve the system of equations by substitution.

$$(3, 3)$$

6. Solve the system of equations by elimination.

$$(3, 3)$$

7. Solve the system of equations by graphing.



$$(3, 3)$$



intersection
point

8. Prove the following equations are equivalent.

$$f(x) = 2x^2 + 8x - 64$$

$$f(x) = 2(x + 2)^2 - 72$$

$$f(x) = 2(x - 4)(x + 8)$$

} put in
standard
form
to compare

9. Simplify.

a. i^{131} $-i$

b. i^{234} -1

c. i^{180} 1

d. i^{57} i