

AA2 Extra Practice #3 Wk 6 Fri

1. Evaluate the determinant. Use “two column” method on a 3×3 .

a.
$$\begin{vmatrix} -2 & 7 \\ 5 & 8 \end{vmatrix}$$

b.
$$\begin{vmatrix} 2 & 3 & 4 \\ 6 & 5 & 7 \\ -1 & 9 & 8 \end{vmatrix}$$

2. Solve by substitution.

$$4x - 3y = 18$$

$$y = -3x + 7$$

3. Solve by elimination.

$$4p + 5q = 7$$

$$3p - 2q = 34$$

4. Solve the system using Cramer's Rule.

a.
$$\begin{aligned} 2x - 3y &= 9 \\ x + 5y &= -2 \end{aligned}$$

$$x + y = -z - 1$$

b.
$$3x - 2y = 4z + 16$$

$$2x - y + z = 19$$

5. Solve by any method.

$$2a + b + c = 2$$

$$-a - b + 2c = 7$$

$$-3a + 2b + 3c = 7$$

6. Solve by graphing.

$$3x + 2y \leq 6$$

$$4x - y < 2$$

7. Graph each system of inequalities. State the maximum of the objective function.

$$y \geq 2$$

$$1 \leq x \leq 5$$

$$y \leq x + 3$$

Objective Function : $W = 3x - 2y$

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1. a) -51

b) 25

2. (3, -2)

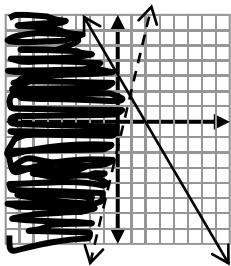
3. (8, -5)

4. a) (3, -1)

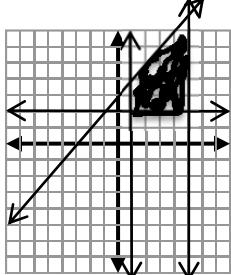
b) (4, -8, 3)

5. (0, -1, 3)

6. Graph:



7. Graph:



Maximum: 11

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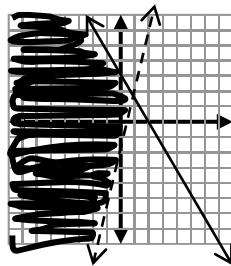
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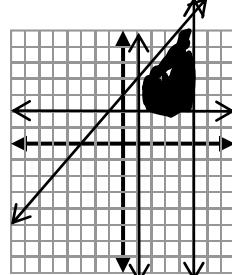
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