## Grade $10^{\mathrm{th}}$ . Algebra. Quiz #2

Name: \_\_\_\_\_

## 1 Exercises

**Exercise 1.1.** Maximize f(x,y) = x + 6y.  $x \ge 0$ ;  $y \ge 0$ ;  $x + 4y \le 8$ ;  $x + y \le 5$ .

Exercise 1.2. Solve the system

$$\begin{cases} 3x - y + 2z = 15 \\ x - 2y - z = -5 \\ 5x + 2y + z = 5 \end{cases}$$

Exercise 1.3. Solve for X

$$\begin{pmatrix} 2 & -1 \\ 2 & -5 \\ -1 & 3 \end{pmatrix} - 3X = \begin{pmatrix} 1 & 7 \\ -4 & 8 \\ -3 & 1 \end{pmatrix} \times \begin{pmatrix} 6 & -7 \\ 2 & -3 \end{pmatrix}$$

Date: monday, may 6<sup>th</sup>, 2024