1. Given the following Liner Programming problem.

    Maximize $z = 30x_1 + 15x_2 - 6x_3$ subject to constrains

    $$-2x_1 + 8x_2 + x_3 \leq 120$$
    $$x_1 + 7x_2 - 2x_3 \leq 240$$
    $$x_1 - x_2 \leq 170$$
    $$x_{1,} x_2, x_3 \geq 0$$

i. Rewrite the objective function above in standard form

    $x_1 \qquad x_2 \qquad x_3 \qquad =$

ii. Rewrite the corresponding system of constraints equation in standard form

    $$-2x_1 \quad + \quad 8x_2 \quad + \quad x_3 \quad + \quad S_1 \quad = \quad 120$$
    $$x_1 \qquad\qquad x_2 \qquad x_3 \qquad\qquad =$$
    $$x_1 \qquad\qquad x_2 \qquad\qquad\qquad\qquad =$$

iii. Convert the standard form above into First Initial Tableau Table.

x_1	x_2	x_3	S_1	S_2	S_3	z	C

2. Solve the linear Programming Problem using Simplex method.

   Maximize $P = x + y$ subject to constrains

   $$x + 2y \le 6$$
   $$2x - y \le -1$$
   $$x \ge 0, y \ge 0$$

standard form

$$=$$

$$=$$

$$= \qquad \longleftarrow \text{objective function.}$$

1st tableau

x	y	S_1	S_2	P	C
					$-\quad =$
					$-\quad =$

2nd tableau

x	y	S_1	S_2	P	C

$R_2 = R_2 - 2R_1$

$R_3 = R_3 + R_1$

$x = \qquad y = \qquad S_1 = \qquad S_2 = \qquad P =$

So, the max value is ___ at (,)