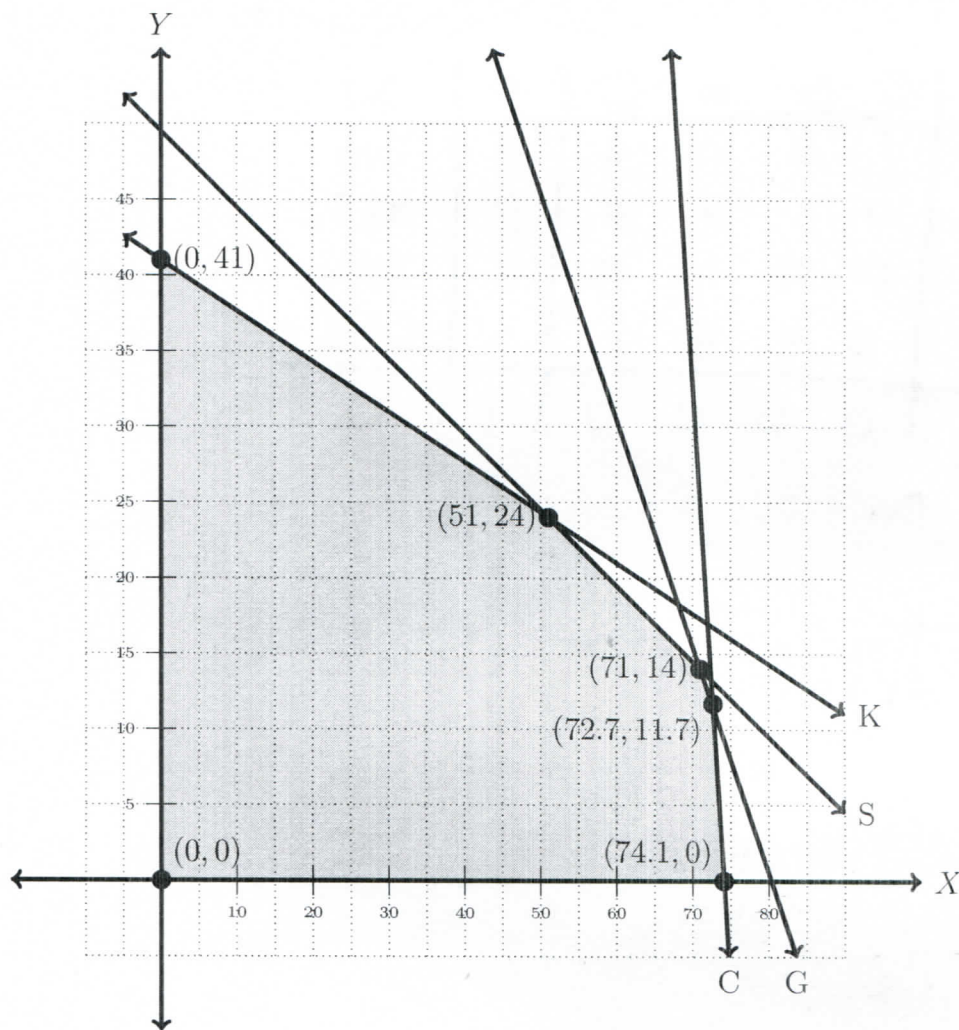


6. List the corners, determine if the region is bounded or unbounded, and find the maximum value of P .

Maximize $P = 2x + 3y$ subject to $\begin{cases} S: 4x + 8y \leq 396 \\ G: 6x + 4y \leq 482 \\ K: 2x + 6y \leq 246 \\ C: 8x + y \leq 593 \end{cases}$ and $x \geq 0, y \geq 0$.



X	Y	P
0	0	$2(0) + 3(0) = 0$
0	41	$2(0) + 3(41) = 123$
51	24	$2(51) + 3(24) = 174$
71	14	$2(71) + 3(14) = 184$
72.7	11.7	$2(72.7) + 3(11.7) = 180.5$
74.1	0	$2(74.1) + 3(0) = 148.2$

Is this region bounded or unbounded?

BOUNDED.

The maximum value of P is 184 and it occurs at $(x = \underline{71}, y = \underline{14})$.