



1. How many vertices does the left picture have? What shape is the figure?

2. Use the enclosed region above to Maximize and Minimize the objective equation $P = 3x + y$

3. What would be the minimum **number of equations** necessary to draw the enclosed region?

4. What does the shaded region mean?

5. Could you find the area of the enclosed region?

6. Graph the following equations on the second axes above and find the point(s) which maximize and minimize the objective function $P = 5x - 2y$

$$\begin{aligned}
 x &\geq 0 \\
 y &\geq 0 \\
 2x + 3y &\leq 12 \\
 x &\leq 5
 \end{aligned}$$