Step-1

Feasible set: A feasible set is composed of the solutions to a family of linear inequalities, and a feasible point maximizes or minimizes a certain cost function.

Step-2

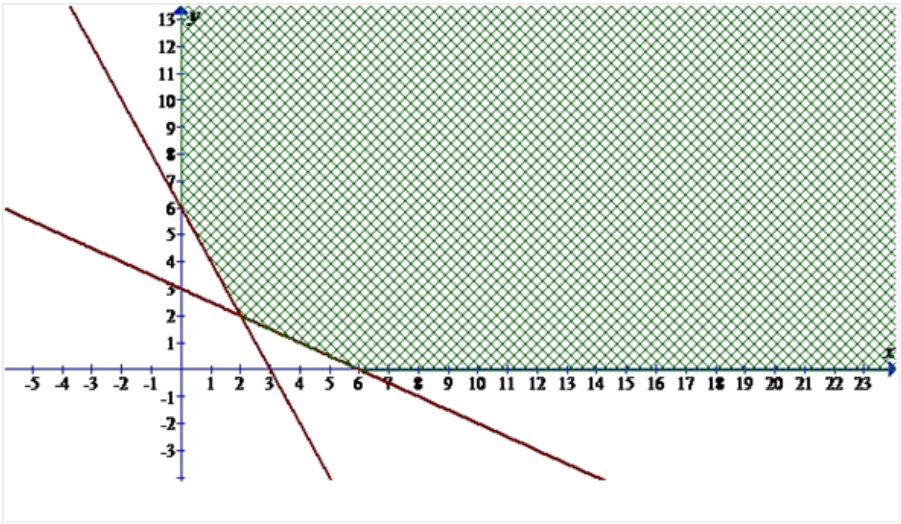
To sketch the feasible set with following constraints:

$$x+2y\geq 6$$
$$2x+y\geq 6$$
$$x\geq 0$$
$$y\geq 0$$

Also, to determine the points that lies at the three corners of this set.

Step-3

Following sketch gives the feasible set:



Here shaded region denotes the feasible region.

Step-4

Therefore, three corner sets are as follows:

$$\boxed{(2,2),(0,6),(6,0)}$$