Task:

can you describe the graphs of these points?
the point (x,y) is less than or equal to 5 units from the center (3,2) of a circle

Solution:

Graph of these points is an area bounded by circle radius of 5 with center (3,2) and the line of the circle belongs to this area.

So we can write an equation of that circle:

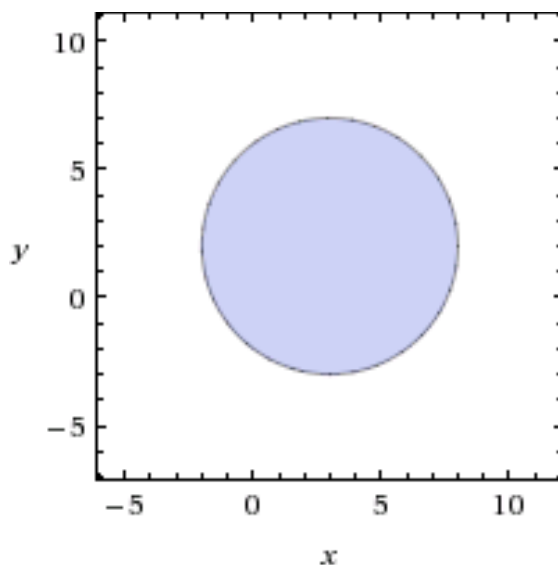$$(x - 3)^2 + (y - 2)^2 = 5^2$$

$$(x - 3)^2 + (y - 2)^2 = 25$$

The graph of these points can be described by the next function:

$$(x - 3)^2 + (y - 2)^2 \le 25$$

$$-2 < x < 8, \quad 2 - \sqrt{-x^2 + 6x + 16} \le y \le \sqrt{-x^2 + 6x + 16} + 2$$

Let's build the graph:

Answer: The graphs of these points are circle and interior region (all the points inside the circle).