1- Find the x- and y-intercepts of the graph of the equation:

a. $y = x^2 - 6x + 8$

b. $y = \sqrt{x^2 - 1}$

c. $x^2 + y^2 = 4$

2- Test each equation for symmetry with respect to the x-axis, the y-axis, and the origin:

a. $y = x^3 + x$

b. $y = 5x^4 + 2x^2$

c. $y = -3x^6 + 2x^4 + x^2$

3- Find the center and the radius of each circle:

a. $x^2 + y^2 - 2x - 2y - 4 = 0$

b. $x^2 + y^2 - x = 0$

c. $2x^2 + 2y^2 + 4y = 0$

4- You are given a line segment AB with $A = (8, -15)$ and B is unknown. If you know that the midpoint is at $(-3, 20)$, then find the coordinates of point B.

5. Determine whether the triangle PQR is an equilateral triangle or not.

a. $P(-1, 4)$, $Q(3, -2)$, $R(7, 5)$.