**P1.** (3 pts.) Find the domain of \( f(x) = \frac{1}{\sqrt{x}} \). Then compute \( f(4) - f\left(\frac{1}{16}\right) \).

**P2.** (3 pts.) Take \( P = (-1, 2) \) and \( Q = (7, 6) \). Write the equation of a circle passing through the origin whose center is the midpoint of the line segment connecting \( P \) and \( Q \).

**P3.** (3 pts.) Find the distance between the point \((-2, 7)\) and the center of the circle \( x^2 + 4x + y^2 - 6x - 3 = 0 \). Then write the equation for the line passing through these two points.

**P4.** (1 pt.) What’s the best name for a pet tiger?