

Name: _____

Math 32, Spring 2010, Section 101
Quiz 4

(1) (2 pts) Sketch a graph of the curve $y = (x - 2)^2 + 1$. Be sure to include the coordinates of any x -intercept(s), y -intercept(s), and the vertex.

(2) (3 pts) A piece of wire 16in. long is to be cut into two pieces. Let x denote the length of the first piece, and $16 - x$ denote the length of the second. The first piece is to be bent into a circle, and the second piece into a square. Express the total combined area of the circle and square as a function of x . (For this quiz, don't worry too much about simplifying your expression for area, as long as it is in terms of just x .)

(3) (5 pts) Which point on the curve $y = \sqrt{x - 2} + 1$ is closest to the point $(4, 1)$?