Show your work!

(1) What point(s) on the parabola with equation $y = x^2$ are closest to the point $(0, 2)$? (You will need to know that the distance from (x_1, y_1) to (x_2, y_2) is $\sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$.)

- **Five** book problems: #12.3.36, 38, 43, 48, 49.