1. Find the domain and zeroes of the function $f(x) = \sqrt{4 - x^2}$.

2. Find the domain and range of the function
$$f(x) = \begin{cases} -x^2 & x < -3 \\ x & 0 \le x < 2 \\ 1 & x \ge 4 \end{cases}$$
(Hint: First, graph the function.)

3. Find the x-intercepts, y-intercepts, and turning points of the following function.

4. Find the interval(s) on which the function of problem 3 is increasing, and the interval(s) on which it is decreasing.

5. For each of the following functions, state whether the function is odd, even, both, or neither. Please justify your answers.

   (a) $f(x) = |x - 4|$

   (b) $f(x) = |x| - 4$

   (c) $f(x) = x^2 - 1$

   (d) $f(x) = (x - 1)^2$