Problem 1: Find the domain of the following functions:

(a) $f(x) = x^3 - 4x + 8$

(b) $g(x) = \dfrac{6}{x + 9}$

(c) $h(x) = \sqrt{2x - 5}$

Problem 2: Find the domain and range of the function $f(x) = 4 - (x + 1)^2$.