

MEMORIAL UNIVERSITY OF NEWFOUNDLAND

DEPARTMENT OF MATHEMATICS AND STATISTICS

SECTION 2.4

Math 1090 Worksheet

FALL 2009

For practise only. Not to be submitted.

1. Solve each of the following equations.

(a) $\sqrt{2-x} = 2-x$

(b) $\sqrt{4x-1} + 4x = 3$

(c) $3x = 1 - \sqrt{5x-4}$

2. Find the domain of each of the following functions without sketching the graph.

(a) $f(x) = \frac{1}{5}\sqrt{3-7x}$

(b) $y = \sqrt{2x+6} - 3$

3. Find the vertex of each of the following functions.

(a) $f(x) = \frac{1}{6}\sqrt{4x+12}$

(b) $g(x) = \sqrt{1-3x} - 8$

4. Sketch the graph of each of the following *without* constructing a table of values. Label all important points. Use the graph to identify the domain and range of the function in each case.

(a) $y = \sqrt{x+4} + 1$

(b) $y = 3 - 4\sqrt{x}$

(c) $f(x) = \sqrt{1-x} - 2$