5.3 Radical Equations

To solve radical equations:

Process:

1.) isolate the radical

2.) square both sides

3.) solve

4.) check for extraneous roots

Example 1: Solve: (find the value(s) of x that make the number sentence true)

a.) $\sqrt{x-5} - 3 = 0$

b.) $\sqrt{3x-1} + 7 = 10$

c.) $\sqrt{x^2 + 3} - 1 = x$

d.) $\sqrt{4x + 17} - x = 3$

e.) $\sqrt{5x + 3} - \sqrt{4 - x} = 0$

f.) $7 + \sqrt{3x} = \sqrt{5x + 4} + 5$

g.) $\sqrt{3 + x} + \sqrt{2x - 1} = 5$

h.) $\sqrt[3]{2x + 1} = 2$

HW p. 300 # 3-9, 10ab, 11, 13, 15-17