1.7.16 Everyone needs a calculator again today.

Solve each equation. Remember to check for extraneous solutions.
Step 1: Isolate the square root
Step 2: Square both sides
Step 3: Solve resulting equation.
Step 4: Check your answer to make sure it is not extraneous!

3) $\sqrt{6p} = p$

$(\sqrt{6p})^2 = p^2$

$6p = p^2$

$-6p \quad -6p$

$0 = p^2 - 6p$

$0 = p(p-6)$

$0 = p \quad 0 = p-6$

$p = 6$

$\sqrt{6(0)} = 0$ ✓

$\sqrt{6(6)} = 6$ ✓

4) $2 + \sqrt{2 - 31x} = 10$

$-2 \quad -2$

$(\sqrt{2-31x})^2 = (8)^2$

$2 - 31x = 64$

$-2 \quad -2$

$-31x = 62$

$\frac{-31x}{-31} = \frac{62}{-31}$

$x = -2$

$2 + \sqrt{2-31(-2)} = 10$

$2 + \sqrt{64} = 10$