

Math 98 Worksheet #3

July 10, 2007

1. Simplify the following.

(a) $1 + \sqrt[4]{3} - 4\sqrt[4]{3}$

(b) $4\sqrt{5}(3 + \sqrt{2})$

(c) $(1 - 3\sqrt{7})(1 + 3\sqrt{7})$

2. Rationalize the denominator in each expression.

(a) $\frac{-6}{\sqrt{18}}$

(b) $\frac{4}{3+\sqrt{7}}$

(c) $\frac{1}{-\sqrt{2}-\sqrt{3}}$

(d) $\frac{2}{\sqrt[3]{5}}$

3. Solve each equation.

(a) $\sqrt{4t-4} - 5 = 1$

(b) $\sqrt[3]{2x+1} = 3$

(c) $2\sqrt{m} = \sqrt{m^2 - 3m - 8}$

(d) $r = \sqrt{5r + 24}$