

Mth 100 Test 3 problem sheet

Pages 645 – 650.

1-12 Simplify each radical (5)

19-24 Application of radicals (2)

51-70, 75 – 88 Simplify and combine these expressions. (6)

$$\sqrt{16ab} = \sqrt{16} \sqrt{a} \sqrt{b}$$

$$\sqrt{x} \sqrt{y} = \sqrt{xy}$$

$$\sqrt{\frac{a}{b}} = \frac{\sqrt{a}}{\sqrt{b}}$$

$$a^n \sqrt[n]{x} + b^n \sqrt[n]{x} = (a+b) \sqrt[n]{x} \text{ Degree of radical must be same}$$

89-96. Simplify each expression, Rationalize denominator if needed.(3)

Remember if the bottom is a binomial, use the conjugate.

101-105. Solve each equation (4)

107 – 122 Perform each operation. Give answer in $a + bi$ form (5)

Remember if given a fraction with a binomial containing an i in the denom, use the conjugate.

$$|a + bi| = \sqrt{a^2 + b^2}$$

$$i = \sqrt{-1} \quad i^2 = -1 \quad i^3 = -i \quad i^4 = 1$$

Page 724. (Bonus)

5-7 Solve by completing the square.

