

# Algebra I

11-5

## Square Roots of Variable Expressions

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Simplify

$$\sqrt{7^2} = \underline{\hspace{2cm}} \quad \sqrt{2^2} = \underline{\hspace{2cm}} \quad \sqrt{(642)^2} = \underline{\hspace{2cm}} \quad \sqrt{(-4)^2} = \underline{\hspace{2cm}}$$

True / False

- 1)  $x$  is always positive.
- 2)  $-x$  is always negative.
- 3)  $x^2$  is always positive.
- 4)  $x^2$  is never negative.
- 5) The answer to a square root may not be

Thus,  $\sqrt{x^2} = \underline{\hspace{2cm}}$

Simplify. (pg 526) [ Then do part b) and round answers to the nearest hundredth.]

1)  $\sqrt{121a^2}$

9)  $\sqrt{80a^2b^2}$

Simplify. (pg 526) [ Then do part b) and round answers to the nearest hundredth.]

$$13) \pm \sqrt{54x^2y^3}$$

$$17) \pm \sqrt{\frac{100f^{10}}{121}}$$

Solve.

$$27) x^2 = 25$$

$$35) 81y^2 - 16 = 0$$

Solve. Round each root to the nearest tenth.

$$43) c^2 - 212 = 0$$

Assignment:

pg. 526

2-50 even,

For questions 2-24, do part a) simplify part b) round to hundredths, if necessary
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