



Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

## Operations with Radicals

In these questions, the symbol  $\sqrt{\quad}$  means the positive square root. Ex.  $\sqrt{9} = +3$ .

For each of the following statements, indicate whether it is true for all values of  $x$ , true for some values of  $x$  or there are no values of  $x$  for which it is true. Circle the correct answer. If you choose "sometimes true", state all values of  $x$  that make it true.

1.  $\sqrt{x} * \sqrt{x} = 2\sqrt{x}$  is (circle one)      Always True      Sometimes True      Never True

a. Is true for which values of  $x$ ?

b. Show your reasoning:

c. If you change 7 to another number, is your answer still correct? Explain.

2.  $\sqrt{\frac{x}{y}} = \sqrt{\frac{x}{y}}$  is (circle one)      Always True      Sometimes True      Never True

a. Is true for which values of  $x$ ?

b. Show your reasoning:

3.  $(1 - \sqrt{4x})(1 + \sqrt{4x}) = -15$  is (circle one):      Always True      Sometimes True      Never True

a. Is true for which values of  $x$ ?

b. Show your reasoning: