

NAME: \_\_\_\_\_ Score \_\_\_\_\_/10

Please **print** your name**SHOW ALL YOUR WORK IN A NEAT AND ORGANIZED FASHION****Assume that  $x$ ,  $y$  and any other variable is a positive real number.**

1. T **F**  $\sqrt{x^2 + y^2} = x + y$

2. **T** F  $\sqrt{xy} = \sqrt{x}\sqrt{y}$

3. **T** F  $\sqrt{\frac{x}{y}} = \frac{\sqrt{x}}{\sqrt{y}}$

4. **T** F  $x^{\frac{1}{2}} = \sqrt{x}$

5. **T** F  $x^{\frac{3}{2}} = \sqrt{x^3}$

6. **T** F  $x^{\frac{3}{2}} = (\sqrt{x})^3$

7. T **F**  $x^0 = 0$

8. T **F**  $x^1 = 1$

9. T **F**  $\left(x^{\frac{1}{3}}\right)\left(x^{\frac{1}{5}}\right) = x^{\frac{1}{8}}$

10. T **F**  $x^{\frac{1}{2}}x^{\frac{1}{2}} = x^{\frac{1}{4}}$