

NAME: _____ Score _____/10

Please **print** your name**SHOW ALL YOUR WORK IN A NEAT AND ORGANIZED FASHION**

For each question after the first I expect you to use the answer to the previous questions. Remember formulas **MUST** be equations.

1. The formula for the volume of a sphere with radius r $V = \frac{4}{3}\pi r^3$.
2. T **F** Every linear function has an inverse.
3. **T** F Some linear functions have an inverse.
4. T **F** No linear function has an inverse.
5. T **F** Every quadratic function has an inverse.
6. T **F** Some quadratic functions have an inverse.
7. T **F** No linear function has an inverse.
8. Find the inverse of the function whose rule is $f(x) = 3x - 5$. Just find it, don't bother showing that it works.

$$f(x) = 3x - 5$$

$$y = 3x - 5$$

$$x = 3y - 5$$

$$x + 5 = 3y$$

$$\frac{x + 5}{3} = y$$

$$f^{-1}(x) = \frac{x + 5}{3}$$