

NAME: _____ Score _____/10

Please **print** your name

You must show your work in order to receive credit.

1. (3 pts) Show that $\sqrt{2}$ is a zero of the function whose rule is $f(x) = x^2 - 3x + 3\sqrt{2} - 2$.

2. (3 pts) Find the inverse of the function whose rule is $f(x) = 5x - 3$.

3. (3 pts) Consider the function whose rule is $f(x) = x^2 + x + 2$. What is the second coordinate of the point which is on the graph of f and whose first coordinate is 3.

4. (1 pt) If f and g are functions and are inverses of each other, then

$$f \circ g(2) = \underline{\hspace{2cm}}$$