## Mini-Quiz 13 Math 111

## Name:

[10] Solve for y. Let x, y, and z be real numbers. Assume no combinations of numbers on this sheet = 0

$$\frac{z}{x} = \frac{1}{yz}$$
  $x = \frac{6x-y}{2y}$   $x = \frac{3}{2x-y}$   $1 = \frac{1}{y} + \frac{1}{y+2}$ 

Solve for g(x). Combine like terms where given but you need not perform fraction addition. Let x, z, and g(x) be real numbers. Assume no combinations of numbers on this sheet = 0

$$\frac{1}{x} = \frac{1}{g(x)} \qquad x = \frac{x - 2g(x)}{3x + g(x) + 3} \qquad \frac{1}{xz} = \frac{1}{g(x)} + \frac{1}{x} \qquad 1 = \frac{1}{g(x)} + \frac{1}{g(x) + 2}$$

$$3(g(x))^2 = 12g(x) - x$$
  
 $g(x) = \frac{12g(x) - 12}{3g(x)}$