

Mini-Quiz 11 Solutions

Math 111

Name:

[10] Solve for y . Combine like terms where given but you need not perform fraction addition. Let x and y be real numbers. Assume no combinations of numbers on this sheet = 0

$$\frac{2}{x} = \frac{3}{y}$$

$$x = \frac{4-y}{3y}$$

$$x = \frac{y}{5y-2x}$$

$$x = \frac{2-5y}{-y-2}$$

$$y = \frac{3x}{2}$$

$$y = \frac{4}{3x+1}$$

$$y = \frac{2x^2}{5x-1}$$

$$y = \frac{2+2x}{5-x}$$

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

$$x = \frac{5+g(x)}{-g(x)}$$

$$x = \frac{3g(x)}{g(x)-4}$$

$$-x = \frac{6-g(x)}{g(x)-2}$$

$$\frac{1}{g(x)} = \frac{1}{xz} + \frac{1}{z}$$

$$g(x) = \frac{5}{-x-1}$$

$$g(x) = \frac{4x}{x-3}$$

$$g(x) = \frac{6-2x}{1-x}$$

$$g(x) = \frac{xz}{1+x}$$

$$2g(x) = \frac{2g(x)+12}{g(x)}$$

$$2g(x) = \frac{3g(x)+x}{g(x)}$$

$$0 = 2g(x)^2 - 2g(x) - 12$$

$$0 = g(x)^2 - g(x) - 6$$

$$g(x) = -2, 3$$

$$0 = 2g(x)^2 - 3g(x) - x$$

$$g(x) = \frac{3 \pm \sqrt{9+8x}}{4}$$