Mini-Quiz 9

Key

[10] Leave answers in factored form as reduced fractions. No credit will be given for non-reduced answers or mixed numbers. Assume all letters are real numbers and that no combination of symbols equal zero in the denominator.

$\frac{1}{9a} + \frac{1}{3}$ $\frac{3a}{3a}$

$\frac{1+3a}{9a}$

$\frac{2}{\frac{1}{2}f(x)} + \frac{-1}{f(x)}$

$\frac{2}{f(x)} - \frac{1}{f(x)}$

$\frac{1}{f(x)}$

$\frac{a^2}{a^2} - \frac{1}{a^2} + \frac{1}{a^2}$

$\frac{-a^2+1}{a^2}$

$\frac{1}{2a} + \frac{1}{\frac{2}{3}a}$ $\frac{3}{3}$

$\frac{1}{2a} + \frac{3}{2a} = \frac{4}{2a}$

$= \frac{2}{a}$

$\frac{3f(x+1)}{3f(x+1)}$ $\frac{2}{b} + \frac{a}{3f(x+1)}$ $\frac{b}{b}$

$\frac{6f(x+1)+ab}{3bf(x+1)}$

$\frac{5}{5}\frac{1}{\frac{2}{5}a} + \frac{-1}{\frac{2}{3}a}\frac{3}{5}$

$\frac{3}{2a} - \frac{3}{2a}$

$\frac{2}{2a} = \frac{1}{a}$

$\frac{2}{b} + \frac{1}{\frac{1}{2}f(x)}$ $\frac{2}{2}$

$\frac{f(x)}{f(x)}\frac{2}{b} + \frac{2}{f(x)}\frac{b}{b}$

$\frac{2f(x)+2b}{bf(x)}$

$\frac{2ab}{2ab}\frac{b}{} + \frac{1}{2ab}$

$\frac{2ab^2+1}{2ab}$

3 $2f(x) + \frac{f(x)}{3}$ 3

$\frac{6f(x)+f(x)}{3}$

$\frac{7f(x)}{3}$

$2\frac{3}{10} + \frac{3}{4}\frac{5}{5}$

2.5

$\frac{6}{20} + \frac{15}{20}$

$\frac{21}{20}$

$\frac{3}{3}\frac{3}{\frac{2}{3}a} + \frac{1}{\frac{2}{5}a}\frac{5}{3}$

$\frac{9}{2a} + \frac{5}{2a}$

$\frac{14}{2a} = \frac{7}{2a}$

$\frac{1}{(a-b)^2} + \frac{2}{a-b}$ $\frac{a-b}{a-b}$

$\frac{1+2(a-b)}{(a-b)^2}$

$\frac{f(x)+1}{f(x)+1}$ $\frac{1}{f(x)+1} + \frac{1}{(f(x)+1)^2}$

$\frac{f(x)+1+1}{(f(x)+1)^2}$

$\frac{a}{a}\frac{a-2}{a+2} + \frac{-1}{a}\frac{a+2}{a+2}$

$\frac{a^2-2a-a-2}{a(a+2)}$

$\frac{b+1}{b+1}\frac{b}{b+1} + \frac{1}{b+1}$

$\frac{b^2+b+1}{b+1}$

$\frac{x+2}{x+2}\frac{x+2}{x} + \frac{x}{x+2}$ $\frac{x}{x}$

$\frac{(x+2)^2+x^2}{x(x+2)}$

$\frac{1}{(x+h)^2} + \frac{1}{x+h}\frac{x+h}{x+h}\frac{1}{x+h} + \frac{-1}{x}\frac{x+h}{x+h}\frac{1}{f(x)+1} + \frac{2}{f(x+1)}\frac{f(x)+1}{f(x)+1}\frac{1}{x^2+2x+1} + \frac{2}{x+1}$

$\frac{1+x+h}{(x+h)^2}$

$\frac{x-x-h}{x(x+h)}$

$\frac{-h}{x(x+h)}$

$\frac{f(x+1)+2f(x)+2}{[f(x)+1]f(x+1)}$

$\frac{1}{(x+1)^2} + \frac{2}{x+1}\frac{x+1}{x+1}$

$\frac{1+2x+2}{(x+1)^2}$