

Quiz 1 MTH 140 Fall 2025

Thursday, September 4, 2025

11:07 AM

$$\frac{5}{x-1} + \frac{2x}{3x-1} = \left(\frac{5}{x-1}\right)\left(\frac{3x-1}{3x-1}\right) + \left(\frac{2x}{3x-1}\right)\left(\frac{x-1}{x-1}\right)$$

$$= \frac{5(3x-1) + (2x)(x-1)}{(x-1)(3x-1)}$$

$$= \frac{15x-5 + 2x^2-2x}{(x-1)(3x-1)}$$

$$= \frac{2x^2 + 13x - 5}{(x-1)(3x-1)} \quad \text{OR} \quad \frac{2x^2 + 13x - 5}{3x^2 - 4x + 1}$$

ok
to
stop
here