

# Quiz 1 MTH140 Fall 2026

Sunday, September 13, 2026

8:32 AM

$$\begin{aligned}\frac{3}{x-2} + \frac{5x}{2x-3} &= \left(\frac{3}{x-2}\right)\left(\frac{2x-3}{2x-3}\right) + \left(\frac{5x}{2x-3}\right)\left(\frac{x-2}{x-2}\right) \\&= \frac{\overset{\curvearrowright}{3(2x-3)} + \overset{\curvearrowright}{5x(x-2)}}{(x-2)(2x-3)} \\&= \frac{6x-9+5x^2-10x}{(x-2)(2x-3)} \\&= \frac{5x^2-4x-9}{(x-2)(2x-3)}\end{aligned}$$