

Simplify

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

Simplify

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

$$\frac{2(x^2 - 3x - 10) + 3(x-5) - (x^2 + 3x + 2)}{(x+2)(x-5)}$$

$$\frac{\underline{2x^2} - \underline{6x} - \underline{20} + \underline{3x} - \underline{15} - \underline{x^2} - \underline{3x} - \underline{2}}{(x+2)(x-5)}$$

$$\boxed{\frac{x^2 - 6x - 37}{(x+2)(x-5)}}$$