* Add $\frac{x-2}{x+4} + \frac{x+3}{x-5}$ Need LCD

① Find LCM of $(x+4)$ and $(x-5)$

LCM $= (x+4)(x-5)$

② $\frac{(x-5)(x-2)}{(x-5)(x+4)} + \frac{(x+3)(x+4)}{(x-5)(x+4)}$

$\frac{(x-5)(x-2)}{(x+4)(x-5)} + \frac{(x+3)(x+4)}{(x+4)(x-5)}$

$\frac{x^2-2x-5x+10}{(x+4)(x-5)} + \frac{x^2+4x+3x+12}{(x+4)(x-5)}$

$\frac{x^2-7x+10}{(x+4)(x-5)} + \frac{x^2+7x+12}{(x+4)(x-5)}$

$\frac{x^2-7x+10+x^2+7x+12}{(x+4)(x-5)}$

$\boxed{\frac{2x^2+22}{(x+4)(x-5)}}$

$\boxed{\frac{2(x^2+11)}{(x+4)(x-5)}}$

factor to check for simplifying