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$$\begin{aligned}
 A &= \frac{x}{x+2} - \frac{x}{x+3} \\
 &= \frac{x(x+3)}{(x+2)(x+3)} - \frac{x(x+2)}{(x+3)(x+2)} \\
 &= \frac{x^2+3x-x^2-2x}{(x+2)(x+3)} \\
 &= \frac{x}{(x+2)(x+3)}
 \end{aligned}$$

$$\begin{aligned}
 B &= \frac{x}{x+1} + \frac{2x-1}{x} \\
 &= \frac{x(x+1)}{(x+1)x} + \frac{(2x-1)(x+1)}{x(x+1)} \\
 &= \frac{x^2+2x^2+2x-x-1}{x(x+1)} \\
 &= \frac{3x^2+x-1}{x(x+1)}
 \end{aligned}$$

$$\begin{aligned}
 C &= \frac{x}{x-1} - x \\
 &= \frac{x(x-1)}{(x-1)} - \frac{x(x-1)}{x-1} \\
 &= \frac{x-x^2+x}{x-1} \\
 &= \frac{-x^2+2x}{x-1}
 \end{aligned}$$