

Bell Work Friday 12/01

SAT No calculator

If $x > 3$, which of the following is equivalent

to $\frac{1}{\frac{1}{x+2} + \frac{1}{x+3}}$?

A) $\frac{2x+5}{x^2+5x+6}$

☒ B) $\frac{x^2+5x+6}{2x+5}$

C) $2x+5$

D) x^2+5x+6

$$\begin{aligned} & 1 \div \left(\frac{1}{x+2} + \frac{1}{x+3} \right) \\ & 1 \div \left(\frac{x+3}{x^2+5x+6} + \frac{x+2}{x^2+5x+6} \right) \\ & 1 \div \left(\frac{2x+5}{x^2+5x+6} \right) \\ & 1 \times \frac{x^2+5x+6}{2x+5} \\ & = \frac{x^2+5x+6}{2x+5} \end{aligned}$$