

$$\frac{2x(x+4) - 3(x+4)}{(x+4)[2x-3]} =$$

$2xa - 3a = a(2x-3)$

$$(x+4)[2x-3]$$

$$\begin{aligned} & \underline{x^3 + 3x^2 + 5x + 15} = \\ & \underline{x^2(x+3) + 5(x+3)} = \\ & (x+3)(x^2 + 5) \end{aligned}$$

$$\begin{aligned} & \underline{y^2 + y} + \underline{yx + x} = \\ & \underline{y}(\underline{y+1}) + x(\underline{y+1}) \\ & (y+1)[y+x] \end{aligned}$$

$$3y^2(\underline{y-2}) + 5(\underline{2-y}) = \begin{array}{l} 2-y = \\ -1(-2+y) \\ \underline{-1(-2+y)} \\ 5(-1)(y-2) \\ \underline{-5(y-2)} \end{array}$$

$$\underline{3y^2(y-2)} + \underline{-5(y-2)}$$

$$(y-2)[3y^2 + -5]$$