

Feb. 19

Method of Decomposition

1 a) $2x^2 + 11x + 12$

$$= \left(\frac{2x^2}{x} + \frac{3}{x} \right) + \left(\frac{8x}{4} + \frac{12}{4} \right)$$

$$= x(2x+3) + 4(2x+3)$$

$$= (2x+3)(x+4)$$

$$= 2x^2 + 8x + 3x + 12$$

$\times 24$
 $+ 11$
 $\frac{12}{4}$
 $\frac{8}{3}$

$$\} 2x^2 + 11x + 12$$

1c)

$$2x^2 + 5x + 2$$

$$\begin{array}{r} \times 4 \\ + 5 \\ \hline 1, 4 \end{array}$$

$$-\left(\frac{2x^2}{x} + \frac{1x}{x}\right) + \left(\frac{4x}{2} + \frac{2}{2}\right)$$

$$= x(2x+1) + 2(2x+1)$$

$$= (2x+1)(x+2)$$

$$2d \quad 3s^2 + 4s + 1$$

$$\times^3 + 4$$

$$= \left(\frac{3s^2}{3s} + \frac{3s}{3s} \right) + \left(\frac{1s}{1} + \frac{1}{1} \right) \quad 3, 1$$

$$= 3s \left(\frac{s+1}{1} \right) + 1 \left(\frac{s+1}{1} \right)$$

$$= (s+1)(3s+1)$$

3a/c/e
on boards

$$4a) \quad 2m^2 - 11m + 12 \quad \times 24$$

$$= \left(\frac{2m^2}{m} - \frac{3m}{m} \right) \left(\frac{-8m + 12}{-4 - 3 - 8} \right)$$

$$= m(2m - 3) - 4(2m - 3)$$

$$= (2m - 3)(m - 4)$$

d
e

5a)

$$8m^2 - 14m + 3$$

$$\times 24 + (-14)$$

$$= \left(\frac{8m^2 - 2m}{2m} \right) \left(-\frac{12m + 3}{-3} \right)$$

$$= 2 - 12$$

$$= 2m(4m - 1) - 3(4m - 1)$$

$$= (4m - 1)(2m - 3)$$

cl
el

hwk

2 bdf

3 bdf

4 bdf

5 bdf

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