

a. $3x^2 - 16x + 20$

$$\frac{-10}{-10}x - \frac{6}{-6} = 60$$

$$\frac{-10}{-10} + \frac{-6}{-6} = -16$$

b. $5m^2 - 7m + 2$

c. $2x^2 + 5x - 7$

$$\begin{aligned} &= 3x^2 - 10x - 6x + 20 \\ &= \underline{x(3x-10)} - \underline{2(3x-10)} \\ &= (3x-10)(x-2) \end{aligned}$$

$$\begin{aligned} &3x^2 - 6x - 10x + 20 \\ &= \underline{3x(x-2)} - \underline{10(x-2)} \\ &= (3x-10)(x-2) \end{aligned}$$

d. $2x^2 + 11x + 15$

$$\begin{aligned} &= 3x^2 - 2x + 12x - 8 \\ &= \underline{x(3x-2)} + \underline{4(3x-2)} \\ &= (3x-2)(x+4) \end{aligned}$$

e. $3x^2 + 10x - 8$

S+P / dic

$$\begin{aligned} -2 \times 12 &= -24 \\ -2 + 12 &= 10 \end{aligned}$$

$$\begin{aligned} &= 3x^2 + 12x - 2x - 8 \\ &= \underline{3x(x+4)} - \underline{2(x+4)} \\ &= (x+4)(3x-2) \end{aligned}$$

f. $8x^2 - 6x + 1$

g. $3p^2 - 10p + 3$

$$\begin{aligned} &= 3p^2 - 9p + 1p + 3 \\ &= 3p(p-3) - 1(p-3) \\ &= (3p-1)(p-3) \end{aligned}$$

$$\begin{aligned} -9 \times -1 &= 9 \\ -9 + -1 &= -10 \end{aligned}$$

h. $6x^2 + 11x + 5$

$$\begin{aligned} 5 \times 6 &= 30 \\ 5 + 6 &= 11 \end{aligned}$$

i. $2y^2 - 11y + 12$

$$\begin{aligned} &= 6x^2 + 5x + 6x + 5 \\ &= x(6x+5) + 1(6x+5) \\ &= (x+1)(6x+5) \end{aligned}$$

$$\begin{aligned} &= 6x^2 + 6x + 5x + 5 \\ &= 6x(x+1) + 5(x+1) \\ &= (x+1)(6x+5) \end{aligned}$$