



$$:(3x + 2)(4x + 5) + (4x + 5)(7x + 8) :$$

بنفس الطريقة حلّ مايلي :

1

مثال

$$A = (-2x + 3)(2 - 3x) + (4x - 7)(2 - 3x)$$

$$B = (-7 - 4x)^2 + (-7 - 4x)(5x + 3)$$

$$C = 2x(-6x + 7) + (x + 1)(-6x + 7)$$

$$D = 7x(2 - 3x) + 7x(9x - 1)$$

$$E = 5(3x + 9) + 5(6x - 8)$$

$$(3x + 2) \underbrace{(4x + 5)}_{\text{عامل مشترك}} + \underbrace{(4x + 5)}_{\text{عامل مشترك}}(7x + 8)$$

$$(4x + 5) [(3x + 2) + (7x + 8)]$$

$$(4x + 5) [3x + 2 + 7x + 8] \setminus \text{لا نغيّر الاشارة لأنّ الأقواس مسبوقين بالإشارة} +$$

$$(4x + 5) [3x + 7x + 2 + 2]$$

$$(4x + 5) (10x + 4)$$

$$:(4x - 2)(4x + 5) - (4x - 2)(7x + 9) :$$

بنفس الطريقة حلّ مايلي :

1

مثال

$$A = (7x + 3)(2 - 5x) - (7x + 3)(-x + 1)$$

$$B = (3 - 4x)(8x + 9) - (3 - 4x)(6x - 3)$$

$$C = 9x(-x + 7) - (-x + 7)^2$$

$$D = x(8 - 3x) - x(9x - 10)$$

$$E = 5(x + 7) - 5(5x - 2)$$

$$\underbrace{(4x - 2)}_{\text{عامل مشترك}}(4x + 5) - \underbrace{(4x - 2)}_{\text{عامل مشترك}}(7x + 9)$$

$$(4x - 2) [(4x + 5) - (7x + 9)]$$

$$(4x - 2) [4x + 5 - 7x - 9] \setminus \text{نغيّر الاشارة لأنّ الأقواس مسبوقين بالإشارة} -$$

$$(4x - 2) [4x - 7x + 5 - 9]$$

$$(4x - 2) (-3x - 4)$$

$$:(4x - 2)(4x + 5) + 16x + 20 :$$

بنفس الطريقة حلّ مايلي :

1

مثال

$$A = (7x + 3)(2 - 5x) + 6 - 15x$$

$$B = 12x - 6 - (3 - 4x)(6x - 3)$$

$$C = 18x + 6 + (3x + 1)(-x + 7)$$

$$D = 18x - 20 + x(9x - 10)$$

$$E = 25x - 10 - 5x(5x - 2)$$

$$(4x - 2)(4x + 5) + 16x + 20$$

$$= (4x - 2)(4x + 5) + \underbrace{4}_{\times 4x} + \underbrace{4}_{\times 5}$$

$$= (4x - 2) \underbrace{(4x + 5)}_{+4} + 4 \underbrace{(4x + 5)}$$

$$= (4x - 2) [(4x + 5) + 4]$$

$$= (4x - 2) [4x + 5 + 4]$$

$$= (4x - 2) (4x + 9)$$

$$: (5x + 3)(4x + 5) + 16x^2 - 25 :$$

مثال

بنفس الطريقة حلّ مايلي :

1

$$A = (7x + 3)(2 - 5x) + 49x^2 - 9$$

$$B = 9 - 16x^2 - (3 - 4x)(6x - 3)$$

$$C = 9x^2 - 1 + (3x + 1)(-x + 7)$$

$$D = 81x^2 - 100 + x(9x - 10)$$

$$E = 25x^2 - 4 - 5x(5x + 2)$$

$$\begin{aligned} & (5x + 3)(4x + 5) + 16x^2 - 25 \\ &= (5x + 3)(4x + 5) + (4x)^2 - 5^2 \\ &= (5x + 3)(4x + 5) + (4x + 5)(4x - 5) \\ &= (5x + 3)(4x + 5) + (4x + 5)(4x - 5) \\ &= (4x + 5) [(5x + 3) + (4x - 5)] \\ &= (4x + 5) [5x + 3 + 4x - 5] \\ &= (4x + 5) [5x + 4x + 3 - 5] \\ &= (4x + 5)(9x - 2) \end{aligned}$$

$$: (4x + 5)^2 - 16 :$$

مثال

بنفس الطريقة حلّ مايلي :

1

$$A = (2 - 5x)^2 - 25$$

$$B = 81 - (3 - 4x)^2$$

$$C = (8x - 1)^2 - (3x + 1)^2$$

$$D = (x + 1)^2 - (5x + 7)^2$$

$$E = 64 - (2x + 4)^2$$

$$\begin{aligned} & (4x + 5)^2 - 16 \\ &= (4x + 5)^2 - 4^2 \\ &= [(4x + 5) - 4][(4x + 5) + 4] \\ &= (4x + 5 - 4)(4x + 5 + 4) \\ &= (4x - 1)(4x + 9) \end{aligned}$$