

التمرين الأول

أحسب ما يلي :

$$A_3 = 1 \div \left(\frac{-3}{4} - \frac{3}{5} \right) ; A_2 = 1 - \left(\frac{2}{3} - \frac{4}{3} \right) - \left[1 - \left(\frac{4}{3} - \frac{3}{4} \right) \right] - \left[1 - \left(\frac{5}{3} - \frac{1}{4} \right) \right] ; A_1 = 3 \times \frac{5}{6} - \frac{4}{3} \times 6 + \frac{2}{3}$$

$$A_5 = \left(\frac{1 + \frac{1}{3}}{1 - \frac{1}{3}} \div \frac{1 + \frac{1}{7}}{1 - \frac{1}{7}} \right) \times \left(\frac{2 - \frac{1}{9}}{3 + \frac{5}{3}} \div \frac{9 - \frac{1}{2}}{5 + \frac{9}{3}} \right) \text{ و } A_4 = \left(\frac{3}{5} - \frac{2}{3} + \frac{3}{4} \right) \div \left(\frac{-5}{6} + \frac{2}{3} \right)$$

التمرين الثاني

$2a - 3b = 10$ حيث a و b عدنان حقيقيان

أحسب العدد M حيث : $M = (5a - 2b + 4) - (a + 4b - 5) - 28$

التمرين الثالث

بسط ما يلي :

$$A = \left(\frac{1}{a+2} + \frac{1}{a-2} \right) \times \frac{a^2 - 4}{2a} \text{ و } B = \frac{a}{a-b} + \frac{b}{a+b} + \frac{a^2 + b^2}{a^2 - b^2} \text{ بحيث : } a \neq 0 \text{ و } a^2 \neq 4 \text{ و } a^2 \neq b^2$$

التمرين الرابع

أنشر ثم بسط ما يلي :

$$C_2 = x(x^2 - 2x + 5) - 3(x^3 + x^2 - 5x) \quad C_1 = 2(5x - 3) - 6(4x - 5) + 5(-6x - 7)$$

$$C_4 = (2x - 3)(5 + 3x) + (-4x + 2)(5x - 1) \quad C_3 = x(1 - x^2) + 3x^2 \left(\frac{1}{3}x + 2 \right) - x(-2x + 1)$$

$$C_6 = (5a - 2)^2 + (a + 4)^2 + (a - 2)(a + 2) \quad C_5 = (a - 2b + 3c)(-2a + 3b + 4c)$$

$$C_8 = \left(3a + \frac{1}{3} \right)^2 + \left(2a - \frac{1}{2} \right)^2 + \left(a - \frac{1}{4} \right) \left(a + \frac{1}{4} \right) \quad C_7 = (2x - 3)^2 (2x + 3)^2$$

$$C_{10} = (3x - 7a)(3x + 7a) + (x + a + 4)^2 \quad C_9 = \left(\frac{a}{3} - \frac{b}{2} \right) \left(\frac{a}{3} + \frac{b}{2} \right) \left(\frac{a^2}{9} + \frac{b^2}{4} \right)$$

التمرين الخامس

عمل ما يلي :

$$D_3 = \frac{4}{9}x^2 - 121 ; D_2 = (3-5x)(2x+1) + (x-1)(3-5x) ; D_1 = 13xy + 39xy^2 - 26y^2$$

$$D_6 = (3x+2)^2 - 49 ; D_5 = 1 - \frac{81}{25}x^2 ; D_4 = (5-3x)(x-2) - (15-9x)(3x+4)$$

$$D_9 = (x-2)^2 - 9(x^2+8x+16) ; D_8 = (25x-35x^2) + (7x-5) ; D_7 = (3x-1)^2 - (x-5)^2$$

$$D_{10} = 4x^2 - 25 - (2x-5)(x+3) + 5 - 2x$$