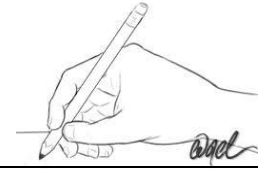




ثانوية سيدي عمرو التأهيلية - تازارين  
سلسلة تمارين درس " الحساب الحرفي "



ذ : ياسني نورالدين

الثانية ثانوي إعدادي ، 2013

المادة : الرياضيات

التمرين الأول : - بسط ما يلي :

$$L = 3ab - 2a + 45a - 45 + 2ba - 5b + 8a - 8 \quad ; \quad K = 2a - 1 + 0,5b - a + 3 - 8b$$

$$N = 2,4 - 9b - 4a + 2x + (-11) + 5b - x + 7a - 1 \quad ; \quad S = -5ax + 11 + 2a - (-2) - 6ax + 2a$$

$$d = 7x - 3x^2 - 8 + 5x^3 + 2x - x^2 - 4x^3 - 1 \quad ; \quad a = 3x + 2x^2 - 5 + 2x - 7x^2 + 11$$

$$R = 1 - (4x - 5 + 2y) + (3y - 20 + x) \quad ; \quad V = 2x - [1 - 5a - (5a + 7 - 6x)] - (4x - a + 8)$$

$$D = -\frac{4}{3}x^3 - 2x + \frac{1}{2}x^2 + x^3 - \frac{2}{3}x - 4 \quad ; \quad B = \frac{7x}{4} - \frac{1}{2}y + 5x + \frac{7}{4}y \quad ; \quad J = \frac{-5x}{6} + \frac{-2}{7} - \frac{6}{7}x + 3$$

$$T = \frac{5a+7}{3} + \frac{4b-a}{6} + \frac{3-6b}{2} \quad ; \quad X = -\frac{2a}{3} - \frac{-1}{-3} + \frac{7}{6}a - \frac{3}{9} \quad ; \quad U = -\frac{7}{5} + \frac{-1}{-5} + \frac{9}{8}a - \frac{3}{10} - \frac{-3}{4}a$$

$$Z = \frac{x^2 - 2x^3 + 5x - 3}{12} - \frac{9 + 4x - x^3 + 3x^2}{6} \quad ; \quad Q = \frac{9y+1}{15} - \left( \frac{-7+6x}{3} + \frac{-2y+x-7}{5} \right)$$

$$V = 2a - \left[ 1 - \frac{y}{7} - \left( -\frac{4}{5}x + \frac{9}{4} - \frac{6}{7}y \right) \right] - \left( \frac{4}{3}a - x - \frac{-1}{2} \right) \quad ; \quad W = \frac{9x-5}{8} - \frac{y+4}{2} + \frac{5-3x+7y}{4}$$

$$a = \frac{2}{3}x - \left( \frac{1}{2} - \frac{5}{2}x^2 \right) + \left( \frac{x^2}{2} - x + \frac{5}{3} \right) \quad ; \quad b = - \left[ \frac{5}{3}x - \left( \frac{1}{2} + x \right) \right] - \left( \frac{2}{3}x - \frac{1}{2}x + 4 \right) \quad ; \quad I = \frac{x}{2} - \left( \frac{x}{3} - \frac{x}{4} \right)$$

قواعد النشر والتعميل : - أتمم بالنشر أو التعميل :

$$(a+b)(c-d) = \dots \quad ; \quad (a+b)(c+d) = \dots \quad ; \quad k(a-b+c) = \dots \quad ; \quad ka - kb = \dots \quad ; \quad k(a+b) = \dots$$
$$a^2 - b^2 = \dots \quad ; \quad (a-b)^2 = \dots \quad ; \quad a^2 + 2ab + b^2 = \dots \quad ; \quad (a-b)(c+d) = \dots \quad ; \quad ac - ad - bc + bd = \dots$$

التمرين الثاني : - انشر وبسط ما يلي :

$$(-3x-4)(-5-x) \quad ; \quad (2x-1)(x+3) \quad ; \quad 5x(2x^2-x-1) \quad ; \quad 2x(1-x)$$

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

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

$$S = 4x(1 + 2x^2 - 3x^3 + 5x) + (-2x^4) + 8x - 7 + x^2 ; \quad T = \left(\frac{-6}{7} + \frac{2}{8}a\right)\left(\frac{3x}{5} - \frac{1}{4}\right)$$

$$R = \frac{-4a}{3}\left(\frac{7x}{6} - \frac{11}{2} + \frac{1}{-5}a\right) - 7\left(\frac{-4}{-3} + \frac{ax}{5} - a^2\right) ; \quad V = 3x\left(\frac{6t-1}{7} + \frac{2x}{4} - \frac{2}{9}\right)$$

$$b = \left(\frac{3}{4}x + \frac{2}{3}\right)^2 ; (x-7)(x+7) ; D = -2x(3-x)^2 ; A = (2x-1)^2 ; (a+5)^2$$

$$(6b-2+x)(6b-2-x) ; f = \left(\frac{5}{3}x - \frac{1}{2}\right)\left(\frac{5}{3}x + \frac{1}{2}\right) ; \left(\frac{-2}{11}x - \frac{-4}{-3}\right)^2 ; (2x+1-b)^2$$

التمرين الثالث : - عمل مايلي :

$$Q = \frac{-1}{5}ax^4 + \frac{-7}{-6}a^2x - \frac{6ax}{8} ; A = 2a^2 + 6a ; W = 6ax - 3x^2 + 18x ; Z = 2ax - 2bx + 2xc$$

$$c = 12x^3 + 4x^2(x+3) - 4x^2 ; C = 24ab^2 + 12a^2b - 4abc ; T = -4a^2bc - 12ab^2c + 8abc^2$$

$$M = 4 - 2a + 2x - ax ; e = 5x(3-x) + (3-x)^2 ; F = \frac{25}{2}x^2(x-2) + \frac{5x}{4}(x-2)$$

$$S = 1 - x + x^2 - x^3 ; E = \frac{4}{-3}x^2 - \frac{2}{3}x - \frac{ax^3}{3} ; P = \frac{6}{5} - 6x + \frac{7}{5}x - 7x^2$$

$$b = \left(5 - \frac{2x}{3}\right)\left(\frac{2}{3}x + 5\right) - \left(5 - \frac{2x}{3}\right)^2 + \left(5 - \frac{2x}{3}\right) ; a = \left(\frac{1}{2}x + \frac{7}{2}\right)^2 + \left(\frac{1}{2}x + \frac{7}{2}\right)\left(3x - \frac{2}{5}\right)$$

$$J = (2x)^2 - 9^2 ; X = 12^2 - t^2 ; H = x^2 - 2 \times x \times 1,5 + 1,5^2 ; k = 5^2 + 2 \times 5 \times 7 + 7^2$$

$$m = \left(\frac{7}{3}\right)^2 - x^2 ; j = \left(\frac{5}{3}\right)^2 + 2 \times \frac{5}{3} \times \frac{a}{9} + \left(\frac{a}{9}\right)^2 ; i = x^2 - 6x + 9 ; I = a^2 + 4a + 4$$

$$S_n = (2x)^2 - a^2 - \left(\frac{5t}{4}\right)^2 ; A_n = x^2 - 25 ; B_m = \frac{9}{4} - t^2 ; C_p = \frac{x^2}{4} + x + 1$$

$$e = 16x^2 - 9 ; c = 81 - 36x + 4x^2 ; b = x^2 + 2x + 1 ; a = 25x^2 + 20x + 4$$

$$C = \frac{9}{16}x^2 + \frac{9}{4}x - 4 ; D = 4x^4 - 12x^2 + 9 ; A = 32x^2 - 2 ; f = 144 - 4x^2$$

$$c = \left(\frac{3}{2}x + 4\right)^2 - \left(\frac{5}{2} - 2x\right)^2 ; f = 9x^2 - \frac{9}{2}x + \frac{9}{16} ; e = \frac{16}{9}x^2 + \frac{16}{9}x + \frac{4}{9} ; a = \frac{9x^2}{4} - \frac{1}{9}$$