La Providence - Montpellier

CORRIGE – M. QUET

EXERCICE 1 : Développer :

(	**a**	**+**	**b**	**)**	**(**	**c**	**+**	**d**	**)**	**=**	**a c**	**+**	**a d**	**+**	**b c**	**+**	**b d**
(	x	+	Y	)	(	z	+	t	)	=	**x z**	+	**x t**	+	**Y z**	+	**Y t**
(	3	+	2	)	(	a	+	b	)	=	**3 a**	+	**3 b**	+	**2 a**	+	**2 b**
(	x	+	3	)	(	t	+	v	)	=	**x t**	+	**x v**	+	**3 t**	+	**3 v**
(	a	+	c	)	(	b	+	d	)	=	**a b**	+	**a d**	+	**c b**	+	**c d**
(	c	+	d	)	(	5	+	3	)	=	**5 c**	+	**3 c**	+	**5 d**	+	**3 d**
(	x^2	+	x	)	(	y^2	+	y	)	=	x^2y^2	+	x^2 **y**	+	**x** y^2	+	**x y**
(	a	+	x	)	(	b	+	y	)	=	**a b**	+	**a y**	+	**x b**	+	**x y**
(	c	+	a	)	(	d	+	b	)	=	**c d**	+	**c b**	+	**a d**	+	**a b**

EXERCICE 2 - Développer :

(x + t)(y + z)	=	**xy + xz + ty + tz**
(a + x)(b + y)	=	**ab + ay + xb + xy**
(3 + x)(2 + y)	=	**6 + 3y + 2x + xy**
(x + 6)(y + 4)	=	**xy + 4x + 6y + 24**
(a + 2)(b + 7)	=	**ab + 7a + 2b + 14**
(b + a)(d + c)	=	**bd + bc + ad + ac**
(c + d)(a + b)	=	**ca + cb + da + db**
(1 + x)(y + 1)	=	**y + 1 + xy + x**
(x + 2)(x + 3)	=	**x^2 + 3x + 2x + 6**
(2x + 1)(x + 5)	=	**2 x^2 + 10x + x + 5**

EXERCICE 3 - Développer :

(x + 3)(x – 2)	=	**x^2 – 2x + 3x – 6**
(x – 4)(x +1)	=	$x^2+x-4x-4$
(x^2 + 1)(x + 2)	=	x^3+2x^2+x+2
(5 – x)(-3 – x)	=	$-15-5x+3x+x^2$
(2a + 4)(3a – 5)	=	$6a^2-10a+12a-20$
(x^2 – 3)(-2x + 4)	=	$-2x^3+4x^2+6x-12$
(3x – 7)(4x^2 – 1)	=	$12x^3-3x-28x^2+7$
(1 + x)(-x + 1)	=	$-x+1-x^2+x$
(3x^2 – 5)(x + 2)	=	$3x^3+6x^2-5x-10$
(-3 + x)(6 – 2x^2)	=	$-18+6x^2+6x-2x^3$

EXERCICE 4 : Développer puis réduire :

A = (x + 3)(x – 2) **A = x^2 – 2x + 3x – 6** **A = x^2 + x – 6**	B = (x – 4)(x + 6) B = $x^2+6x-4x-24$ B = $x^2-2x-24$
C = (a – 5)(2a – 7) C = $2a^2-7a-10a+35$ C = $2a^2-17a+35$	D = (4 – x^2)(x + 3) D = $4x+12-x^3-3x^2$ D = $-x^3-3x^2+4x+12$
E = (3x – 2)(5x + 1) E= $15x^2+3x-10x-2$ E = $15x^2-7x-2$	F = (4 – 2x)(–1 – 3x) F = $-4-12x+2x+6x^2$ F = $6x^2-10x-4$
G = (x + 3)(x + 3) G = $x^2+3x+3x+9$ G = x^2+6x+9	H = (2 – x)(2 – x) H = $4-2x-2x+x^2$ H = $4-4x+x^2$
I = (a + b)(a – b) I = $a^2-ab+ba-b^2$ I = a^2-b^2	J = (x + 6)² J = $x^2+6x+6x+36$ J = $x^2+12x+36$

EXERCICE 5 : Développer puis réduire :

$A=(4x-1)(6-3x)$ $A=24x-12x^2-6+3x$ $A=-12x^2+27x-6$
$B=(x-2)(x+7)+x^2$ $B=x^2+7x-2x-14+x^2$ $B=2x^2+5x-14$
$C=2x^2+(x-4)(3-x)$ $C=2x^2+3x-x^2-12+4x$ $C=x^2+7x-12$
$D=x(x-1)-3(x+1)$ $D=x^2-x-3x-3$ $D=x^2-4x-3$
$E=(x+2)(-x-3)+3x^2$ $E=-x^2-3x-2x-6+3x^2$ $E=2x^2-5x-6$