**Exercice :**

Calcule les expressions suivantes pour a = -2 ; b = +3 ; c = -1 et d = +1 :

A = a + b + c + d ; B = a - b + c - d ; C = -a + b - c - d ;

D = - (a + b) + (c + d) ; E = - (a - b) - (c - d) ; F = (a - b) + (c - d).

**Correction exercice :** a = -2 ; b = +3 ; c = -1 et d = +1.

A = a + b + c + d
= -2 + (+3) + (-1) + ( +1)
= -2 + 3 - 1 + 1
= -2 - 1 + 3 + 1
= -3 + 4
= 1

B = a - b + c - d
= -2 - (+3) + (-1) - (+1)
= -2 - 3 - 1 - 1
= -7

C = -a + b - c - d
= - (-2) + (+3) - (-1) - (+1)
= +2 + 3 + 1 - 1
= 6 - 1
= 5

D = - (a + b) + (c + d)
= - ((-2) + (+3)) + ((-1) + (+1))
= - (-2 + 3) + (-1 + 1)
= - (+1) + (0)
= -1

E = - (a - b) - (c - d)
= - ((-2) - (+3)) - ((-1) - (+1))
= - (-2 - 3) - (-1 - 1)
= - (-5) - (-2)
= +5 + 2
= +7

F = (a - b) + (c - d)
= ((-2) - (+3)) + ((-1) - (+1))
= (-2 - 3) + (-1 - 1)
= (-5) + (-2)
= -5 - 2
= -7

**Exercice :**

Calcule les expressions suivantes pour a = +2 ; b = -4 ; c = -3 et d = +1 :

A = a + b + c + d ; B = a - b + c - d ; C = -a + b - c - d ;

D = - (a + b) + (c + d) ; E = - (a - b) - (c - d) ; F = (a - b) + (c - d).

**Correction exercice :** a = +2 ; b = -4 ; c = -3 et d = +1.

A = a + b + c + d
= (+2) + (-4) + (-3) + (+1)
= 2 - 4 - 3 + 1
= -4 - 3 + 2 + 1
= -7 + 3
= -4

B = a - b + c - d
= (+2) - (-4) + (-3) - (+1)
= 2 + 4 - 3 - 1
= 6 - 4
= 2

C = -a + b - c - d
= -(+2) + (-4) - (-3) - (+1)
= -2 - 4 + 3 - 1
= -2 - 4 - 1 + 3
= -7 + 3
= -4

D = - (a + b) + (c + d)
= - ((+2) + (-4)) + ((-3) + (+1))
= - (2 - 4) + (-3 + 1)
= - (-2) + (-2)
= +2 - 2
= 0

E = - (a - b) - (c - d)
= - ((+2) - (-4)) - ((-3) - (+1))
= - (2 + 4) - (-3 - 1)
= -6 - (-4)
= -6 + 4
= -2

F = (a - b) + (c - d)
= ((+2) - (-4)) + ((-3) - (+1))
= (2 + 4) + (-3 - 1)
= (+6) + (-4)
= +6 - 4
= +2

**Exercice :**

Calcule les expressions suivantes pour a = -2 et b = +3 :

A = 2b + 3a - 2 ; B = (2b + 3) (a - 2) ; C = 2(b + 3)a - 2 ;

D = 2a - 3b + 1 ; E = (2a - 3) (b + 1) ; F = 2(a - 3b) + 1 ;

$G = \frac{2a - 3b}{a + b}$ ; $H = \frac{b - 2a}{2a - b + 6}$ ; $I = \frac{(a - 2b)(-1 + a)}{a + b + 1}$.

**Exercice :**

Calcule les expressions suivantes pour a = +2 et b = -3 :

A = 2b + 3a - 2 ; B = (2b + 3) (a - 2) ; C = 2(b + 3)a - 2 ;

D = 2a - 3b + 1 ; E = (2a - 3) (b + 1) ; F = 2(a - 3b) + 1 ;

$G = \frac{2a - 3b}{a + b}$ ; $H = \frac{b - 2a}{2a - b + 6}$ ; $I = \frac{(a - 2b)(-1 + a)}{a + b + 1}$.

**Exercice :**

Calcule les expressions suivantes sachant que a = 6 ; b = 4,5 et c = 0,5 :

1) $a + bc$ 2) $a - bc$ 3) $a + \frac{b}{c}$ 4) $2a - \frac{b}{c}$

5) $\frac{a}{b + c}$ 6) $\frac{a}{b - c}$ 7) $\frac{a}{b + c}$ 8) $\frac{a - b}{c}$

**Exercice :**

Calculer les expressions suivantes pour $a = -2$ et $b = +3$.

$A = a - b$ ; $B = a + b$ ; $C = b - a$ ; $D = a + a - b - b$ ; $E = b - a - a$.

**Exercice :**

Calculer les expressions suivantes pour $a = -2$ ; $b = +3$ ; $c = -1$ et $d = +1$ :

$A = a + b + c + d$ ; $B = a - b + c - d$ ; $C = -a + b - c - d$ ;

$D = -a - b - c + d$ ; $E = a - b - c - d$ ; $F = -a - b + c - d$ ;

$G = -a - b - c - d$ ; $H = a + b - c + d$ ; $I = a - b + c + d$ ;

$J = - (a + b) + (c + d)$ ; $K = - (a - b) - (c - d)$ ; $L = (a - b) + (c - d)$.