CORRECTIONS

Corrections Savoir Op. 1

Corrigé Exercice 1

A = **–3** B = **–8** C = **+9** D = **–14** E = **+4**

F = **–7** G = **–27** H = **+18** I = **+16** J = **0**

K = **+25** L = **+42** M = **–5** N = **–1** P = **– 49**

Corrigé Exercice 2

1) Z = **49** Y = **25** X = **1** W = **−121** V= **0**

2)

Forme puissance	2^4	$\mathbf{4^5}$	$\mathbf{(-7)^3}$	$(-5)^0$
Forme produit	$\mathbf{2 \times 2 \times 2 \times 2}$	$4 \times 4 \times 4 \times 4 \times 4$	$(-7) \times (-7) \times (-7)$	**1**

3) U = **32** T = **+1** S = **−64** R= **−81** P= **−1**

Corrigé Exercice 3

A = **+3** B = **– 4** C = **–13** D = **+4** E = **2** F = **–2**

G = –1 +9
G = **+8**

H = 7 –11
H = **–4**

I = –5 –10
I = **–15**

J = –21 + 2
J = **–19**

K = –12 – 1
K = **–13**

L = 7 – 3 + 7
L = **11**

Corrigé Exercice 4

1) $A_1 = 5 - (\underline{2 + 7})$
$A_1 = 5 - \ \mathbf{9}$
$A_1 = \mathbf{-4}$

$A_2 = 4 \times (\underline{5 - 2})$
$A_2 = 4 \times \ \mathbf{3}$
$A_2 = \mathbf{12}$

$A_3 = 4 - \underline{5 \times 6}$
$A_3 = 4 - \mathbf{30}$
$A_3 = \mathbf{-26}$

$A_4 = 8 - (\underline{11 - 14})$
$A_4 = 8 \ \underline{- (-3)}$
$A_4 = 8 + 3 = \mathbf{11}$

$A_5 = 5 - \underline{16 \times 2} - 2$
$A_5 = 5 \ \underline{-32 \ - 2}$
$A_5 = 5 \ \mathbf{-34}$ (ou –27 –2)
$A_5 = \mathbf{-29}$

$A_6 = \underline{5 \times 7} - 4 \times 9$
$A_6 = \mathbf{35} - \underline{4 \times 9}$
$A_6 = 35 - \mathbf{36}$
$A_6 = \mathbf{-1}$

$A_7 = (\underline{12 - 4}) \times (-3)$
$A_7 = \ \mathbf{8} \times (-3)$
$A_7 = \mathbf{-24}$

$A_8 = 5 \times (9 \ \underline{-3 \times (-4)})$
$A_8 = 5 \times (\underline{9 + 12})$
$A_8 = 5 \times 21$
$A_8 = \mathbf{105}$

$A_9 = \dfrac{10 - 4}{3 \times 2} = \dfrac{6}{6} = \mathbf{1}$

$A_{10} = 5 \times \dfrac{7 - 1}{3}$
$A_{10} = \ 5 \times \dfrac{6}{3}$
$A_{10} = 5 \times 2 = \mathbf{10}$

$A_{11} = (4 - 16) \div (-3)$
$A_{11} = (\mathbf{-12}) \div (-3)$
$A_{11} = \mathbf{4}$

$A_{12} = \dfrac{3 - 2 \times 6}{(-3)^2}$
$A_{12} = \dfrac{3 - 12}{9} = \dfrac{-9}{9}$
$A_{12} = \mathbf{-1}$

Corrigé Exercice 4 (suite)

2) $B_1 = 2\times\underline{6^2}$; $B_1 = 2\times\mathbf{36}$; $B_1 = \mathbf{72}$

$B_2 = \underline{(2\times6)^2}$; $B_2 = (12)^2$; $B_2 = \mathbf{144}$

$B_3 = 4\times\underline{(-3)^2}$; $B_3 = 4\times\mathbf{9}$; $B_3 = \mathbf{36}$

$B_4 = \underline{(4\times(-3))^2}$; $B_4 = (\mathbf{-12})^2$; $B_4 = \mathbf{+144}$

$B_5 = 5+\underline{2^2}$; $B_5 = 5+\mathbf{4}$; $B_5 = \mathbf{9}$

$B_6 = \underline{(5+2)^2}$; $B_6 = (\mathbf{7})^2$; $B_6 = \mathbf{49}$

$B_7 = \underline{(-2+7)^2}$; $B_7 = (\mathbf{5})^2$; $B_7 = 25$

$B_9 = 2\times\underline{(-5)^2} - 15$; $B_9 = \underline{2\times\mathbf{25}} - 15$; $B_9 = 50 - 15 = \mathbf{35}$

3) $P_1 = \underline{(2\times3)^4}$; $P_1 = \mathbf{6^4}$; $P_1 = \mathbf{1\ 296}$

$P_2 = 5\times\underline{2^3}$; $P_2 = 5\times\mathbf{8}$; $P_2 = \mathbf{40}$

$P_3 = 1 + \underline{(-1)^7}$; $P_3 = 1 - \mathbf{1}$; $P_3 = \mathbf{0}$

$P_4 = \underline{(3-4)^{12}}$; $P_4 = (\mathbf{-1})^{12}$; $P_4 = \mathbf{+1}$

$P_5 = \underline{(4+1)^5}$; $P_5 = (\mathbf{5})^5$; $P_5 = \mathbf{3\ 125}$

$P_6 = 4 - \underline{1^6}$; $P_6 = 4 - \mathbf{1}$; $P_6 = \mathbf{3}$

$P_7 = 2\times\underline{(-1)^3} + 4^1$; $P_7 = \underline{2\times(-1)} + 4$; $P_7 = \mathbf{-2} + 4$; $P_7 = \mathbf{2}$

$P_8 = \underline{(3\times(-2))^3}$; $P_8 = (\mathbf{-6})^3$; $P_8 = \mathbf{-216}$

Corrigé Exercice 5

<u>1er entraînement :</u>

$C_1 = -7 + 3$; $C_1 = \mathbf{-4}$

$C_2 = -8 + 2\times5$; $C_2 = -8 + 10$; $C_2 = \mathbf{2}$

$C_3 = (3\times5-5)\times(7\times2-4)$; $C_3 = (15-5)\times(14-4)$; $C_3 = 10\times10$; $C_3 = \mathbf{100}$

$C_4 = 15\div5 + 5\times7 - 7$; $C_4 = 3 + 35 - 7$; $C_4 = 38 - 7$; $C_4 = \mathbf{31}$

$C_5 = (5-9)^2 - (4-5)\times(10-2)$; $C_5 = (-4)^2 - (-1)\times(8)$; $C_5 = 16 - (-8)$; $C_5 = 16 + 8$; $C_5 = \mathbf{24}$

$C_6 = \dfrac{3\times2-16}{8-3}$; $C_6 = \dfrac{6-16}{5}$; $C_6 = \dfrac{-10}{5}$; $C_6 = \mathbf{-2}$

<u>2ème entraînement :</u>

$D_1 = -8 + 2$; $D_1 = \mathbf{-6}$

$D_2 = 5\times(-7) - 12$; $D_2 = -35 - 12$; $D_2 = \mathbf{-47}$

$D_3 = 4 - 3\times(12 - 2\times8)$; $D_3 = 4 - 3\times(12-16)$; $D_3 = 4 - 3\times(-4)$; $D_3 = 4 + 12$; $D_3 = \mathbf{16}$

$D_4 = 5\times(-3)^2 + 4\times(-3) + 7$; $D_4 = 5\times9 - 12 + 7$; $D_4 = 45 - 5$; $D_4 = \mathbf{40}$

$D_5 = 2\times(6+5) - (2-5)^2$; $D_5 = 2\times11 - (-3)^2$; $D_5 = 22 - (-3)\times(-3)$; $D_5 = 22 - 9$; $D_5 = \mathbf{13}$

$D_6 = \dfrac{16}{8} - \dfrac{6}{3}$; $D_6 = 2 - 2$; $D_6 = \mathbf{0}$