

Exercices – Multiplication de deux nombres relatifs - CORRECTION

Exercice 1 :

Sans les calculer, donne le signe de chacun des produits suivants :

$$A = (-12) \times (+2)$$

A est négatif

$$B = (-10,3) \times (-46)$$

B est positif

$$C = (+34) \times (-28)$$

C est négatif

$$D = (+12,5) \times (+3,1)$$

D est positif

$$E = -36 \times (-1)$$

E est positif

$$F = 2,3 \times (-2,3)$$

F est négatif

$$G = (-2) \times (+24)$$

G est négatif

$$H = -9,1 \times 6$$

H est négatif

Exercice 2 : Calcule mentalement :

$$I = (-8) \times (+2)$$

I = -16

$$J = (-1,5) \times (+20)$$

J = -3

$$K = (-2) \times (+5)$$

K = -10

$$L = (-0,25) \times (-4)$$

L = 1

$$M = (-4) \times (-8)$$

M = 32

$$N = (+0,8) \times (-3)$$

N = -2,4

$$P = (+9) \times (+10)$$

P = 90

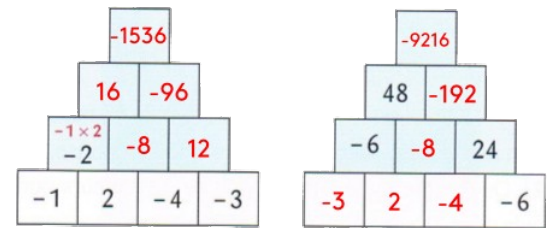
$$Q = (-3,2) \times (+4)$$

Q = -12,8

Exercice 3 :

Dans ces pyramides, chaque nombre situé dans une case bleue est égale au produit des deux nombres situés juste en dessous.

Compléter chaque pyramide.



Exercices – Multiplication de plusieurs nombres relatifs - CORRECTION

Exercice 4 :

Donne le signe de chacun des produits suivants :

$$R = 5,4 \times (-3,2) \times (+4) \times (-5,1)$$

R est positif

$$S = (-0,5) \times (-9) \times 0 \times 7 \times (-1,4) \times (-1)$$

S est positif

$$T = -6 \times (-10) \times 4 \times (-9) \times (-3) \times (-4,1)$$

T est négatif

Exercice 5 : Calculer astucieusement :

$$U = (-2) \times (-1,25) \times (-2,5) \times (-8)$$

$$U = 2 \times 2,5 \times 1,25 \times 8$$

$$U = 5 \times 10$$

$$U = 50$$

$$V = (-75) \times (-0,25) \times (+2) \times (+4)$$

$$V = 75 \times 2 \times 0,25 \times 4$$

$$V = 150 \times 1$$

$$V = 150$$

$$W = (+0,01) \times (-25) \times 4 \times (-3)$$

$$W = -0,01 \times 25 \times 4 \times 3$$

$$W = -0,01 \times 100 \times 3$$

$$W = -3$$

Exercice 6 : Effectue les calculs suivants :

$$X = (-3,2) \times (-10) \times (+2) \times (-0,5)$$

$$X = -3,2 \times 10 \times 2 \times 0,5$$

$$X = -32$$

$$Z = (+2) \times (-10) \times (+3) \times (-1) \times (-1)$$

$$Z = -2 \times 10 \times 3$$

$$Z = -60$$

$$Y = (-3) \times (-0,1) \times (+5) \times (+4)$$

$$Y = 3 \times 0,1 \times 5 \times 4$$

$$Y = 0,3 \times 20$$

$$Y = 6$$

$$A = (-1,5) \times (+4) \times (-1) \times (-3)$$

$$A = -1,5 \times 4 \times 1 \times 3$$

$$A = -6 \times 3$$

$$A = -18$$

Exercices – Division de nombres relatifs - CORRECTION

Exercice 7 : Calculer mentalement:

$$C = 64 \div (-8)$$

$$C = -8$$

$$H = -35 \div 7$$

$$H = -5$$

$$D = 42 \div (-6)$$

$$D = -7$$

$$I = (-54) \div (-6)$$

$$I = 9$$

$$E = -24 \div (-3)$$

$$E = 8$$

$$J = 25 \div (-5)$$

$$J = -5$$

$$F = 81 \div (+9)$$

$$F = 9$$

$$K = (-4) \div (+4)$$

$$K = -1$$

$$G = -17 \div (-1)$$

$$G = 17$$

$$L = (-29) \div (+1)$$

$$L = -29$$

Exercice 8 : Pour chaque fraction, trouve l'écriture la plus simple possible :

Exemple : $\frac{-2}{+9} = -\frac{2}{9}$

$$M = -\frac{+4}{+5} = -\frac{4}{5}$$

$$N = -\frac{-8}{11} = \frac{8}{11}$$

$$P = -\frac{-1}{-5} = -\frac{1}{5}$$

$$Q = \frac{7}{-3} = -\frac{7}{3}$$

$$R = -\frac{1}{-10} = \frac{1}{10}$$

$$S = -\frac{5}{-15} = \frac{5}{15} = \frac{1}{3}$$

Exercice 9 : Calculer chaque expression:

$$A = 12 + (-6)$$

$$A = 6$$

$$B = (-6) \div (-12)$$

$$B = 0,5$$

$$C = 6 \times (-7)$$

$$C = -42$$

$$D = 12 - (-6)$$

$$D = 18$$

$$E = (-3) + (-9)$$

$$E = -12$$

$$F = -9 + 15$$

$$F = 6$$

$$G = 12 \times (-6)$$

$$G = -72$$

$$H = 5 \times (-4)$$

$$H = -20$$

$$I = (-6) \times (-4)$$

$$I = 24$$

$$J = 12 \div (-6)$$

$$J = -2$$

$$K = 3 - (-6)$$

$$K = 9$$

$$L = (-36) \div 4$$

$$L = -9$$

$$M = -12 + (-6)$$

$$M = -18$$

$$N = 15 \div (-5)$$

$$N = -3$$

$$O = -2 - (-6)$$

$$O = 4$$

$$P = -12 - (-6)$$

$$P = -6$$

$$Q = -8 - 16$$

$$Q = -24$$

$$R = 5 - 14$$

$$R = -9$$

$$S = (-12) \times (-6)$$

$$S = 72$$

$$T = -56 \div (-7)$$

$$T = 8$$

Exercice supplémentaire – Différentes opérations - CORRECTION

Exercice 10 :

$$A = -22 + (13 - 5) \times (-5)$$

$$A = -22 + 8 \times (-5)$$

$$A = -22 - 40$$

$$A = -62$$

$$B = (-2) \times (-8) + 2 \times (-20) \div 4$$

$$B = 16 + (-40) \div 4$$

$$B = 16 - 10$$

$$B = 6$$

$$C = -28 + (5 - 2) \times (-4)$$

$$C = -28 + 3 \times (-4)$$

$$C = -28 - 12$$

$$C = -40$$

$$D = 7 \times (-7) + 3 \times (-25) \div (-5)$$

$$D = -49 - 75 \div (-5)$$

$$D = -49 + 15$$

$$D = -34$$

$$E = -3,2 \times (-6) + (-2,3 - 7,7)$$

$$E = 19,2 + (-10)$$

$$E = 9,2$$

$$F = 150 \div (-1,2 - 9 \times 3,2)$$

$$F = 150 \div (-1,2 - 28,8)$$

$$F = 150 \div (-30)$$

$$F = -5$$

$$G = \frac{7 - 7 \times 5}{6 \times 2 - 5}$$

$$H = (4 - 6) \times [5 + (3 - (-2)) \times 2]$$

$$I = \frac{-7 \times (-3) - (-3) \times (-5)}{12 \div (-3) - 2}$$

$$G = \frac{7 - 35}{12 - 5}$$

$$H = -2 \times [5 + 5 \times 2]$$

$$I = \frac{21 - 15}{(-4) - 2}$$

$$G = \frac{-28}{7}$$

$$H = -2 \times [5 + 10]$$

$$I = \frac{6}{-6}$$

$$G = -4$$

$$H = -30$$

$$I = -1$$

Dominos relatifs - CORRECTION

$$A_1 = -1 - 2 \times (-4)$$

$$A_2 = \frac{-2 - 14}{5 - 7}$$

$$B_1 = -2 \times (-3) \times (-1)$$

$$B_2 = -4 \times 7 + 5 \times 7$$

$$A_1 = -1 + 8$$

$$A_2 = \frac{-16}{-2}$$

$$B_1 = -6$$

$$B_2 = -28 + 35$$

$$A_1 = 7$$

$$A_2 = 8$$

$$B_2 = 7$$

$$C_1 = -2 - \frac{-18}{-3} + 9$$

$$C_2 = (-2 - 2,5) \times 2$$

$$D_1 = (1 - (-2)) \times (-3)$$

$$D_2 = -2 + 6 - 7 - (-1)$$

$$C_1 = -2 - 6 + 9$$

$$C_2 = -4,5 \times 2$$

$$D_1 = 3 \times (-3)$$

$$D_2 = -9 + 7$$

$$C_1 = 1$$

$$C_2 = -9$$

$$D_1 = -9$$

$$D_2 = -2$$

$$E_1 = -4 \times (-3 - (-3))$$

$$E_2 = \frac{-12}{1 - (-3)}$$

$$F_1 = \frac{1 - 2}{1 - 3} \times (-6)$$

$$F_2 = -6 - (-4)$$

$$E_1 = -4 \times 0$$

$$E_2 = \frac{-12}{4}$$

$$F_1 = \frac{-1}{-2} \times (-6)$$

$$F_2 = -6 + 4$$

$$E_1 = 0$$

$$E_2 = -3$$

$$F_1 = -3$$

$$F_2 = -2$$

$$G_1 = (-3 - 1) \times (-2)$$

$$G_2 = -1 - (-4) + (-3)$$

$$H_1 = -2 + \frac{20}{-5}$$

$$H_2 = -2 - 1 \times (-3)$$

$$G_1 = (-4) \times (-2)$$

$$G_2 = -1 + 4 + (-3)$$

$$H_1 = -2 + (-4)$$

$$H_2 = -2 + 3$$

$$G_1 = 8$$

$$G_2 = 0$$

$$H_1 = -6$$

$$H_2 = 1$$