


Thème N°1 : NOMBRES RELATIFS

Multiplication et division

« Pour prendre un bon départ »

Exercice n°1 :  Calcule les sommes suivantes :

$$a = (+2) + (-7) = \dots\dots\dots ; b = (-9) + (-4) = \dots\dots\dots ; c = (+6) + (+8) = \dots\dots\dots ; d = (+71) + (-4) = \dots\dots\dots$$

$$e = (-8) + (-7) = \dots\dots\dots ; f = (-7) + (+6) = \dots\dots\dots ; g = (+52) + (-3) = \dots\dots\dots ; h = (-27) + (-25) = \dots\dots\dots$$

$$i = (+12) + (-17) = \dots\dots\dots ; j = (+5) + (-11) = \dots\dots\dots ; k = (-9) + (+9) = \dots\dots\dots ; l = (-6) + (+11) = \dots\dots\dots$$

$$m = (-7,3) + (-4,2) = \dots\dots\dots ; n = (+8,4) + (-11,3) = \dots\dots\dots$$

$$o = (-8,1) + (+3,7) = \dots\dots\dots ; p = (-17,7) + (-1,2) = \dots\dots\dots$$

Exercice n°2 :  Calcule différences suivantes :


$$12 - 18 = \dots\dots\dots = \dots\dots\dots ; -17 - 4 = \dots\dots\dots = \dots\dots\dots$$

$$-5 + 4 = \dots\dots\dots = \dots\dots\dots ; 8 - (-7) = \dots\dots\dots = \dots\dots\dots$$

$$-5 - (-9) = \dots\dots\dots = \dots\dots\dots ; -3 + (-5) = \dots\dots\dots = \dots\dots\dots$$

$$11 + (-15) = \dots\dots\dots = \dots\dots\dots ; -3 - (+6) = \dots\dots\dots = \dots\dots\dots$$

$$3 - 4 = \dots\dots\dots = \dots\dots\dots ; 11 - (-17) = \dots\dots\dots = \dots\dots\dots$$

Exercice n°3 :  Calcule les sommes et différences suivantes :

$$3 + 5 = \dots\dots\dots ; (-3) + 5 = \dots\dots\dots ; (-7) + (-8) = \dots\dots\dots ; 5 + (-7) = \dots\dots\dots ; (-3) + 9 = \dots\dots\dots ;$$

$$(-24) + 21 = \dots\dots\dots ; (-12) + 8 = \dots\dots\dots ; 45 + (-23) = \dots\dots\dots ; 12 + (-5) = \dots\dots\dots ; 0,8 + (-4,8) = \dots\dots\dots$$

$$(-4,5) + 2 = \dots\dots\dots ; (-7) + (+4) = \dots\dots\dots ; 0,5 + (-0,5) = \dots\dots\dots ; 6,5 + (-18,5) = \dots\dots\dots ;$$

$$(+23) - (-34) = \dots\dots\dots ; (-14) - (-8) = \dots\dots\dots$$

$$(-8) - (+6) = \dots\dots\dots ; (-5) - (+31) = \dots\dots\dots$$

$$(+13) - (-13) = \dots\dots\dots ; (-15,2) - (-3,3) = \dots\dots\dots$$

ACTIVITE : Découvrir la multiplication des nombres décimaux relatifs

1. Complète la tableau en prenant deux couleurs différentes.

×	-5	-4	-3	-2	-1	0	1	2	3	4	5
5						0					
4						0					
3						0					
2						0					
1						0					
0	0	0	0	0	0	0	0	0	0	0	0
-1						0					
-2						0					
-3						0					
-4						0					
-5						0					

en vert

en rouge

2. Observe la table de multiplication ci-dessus pour répondre aux deux questions suivantes :

- Comment trouve-t-on la distance à zéro du produit de deux nombres ? :
- Comment trouve-t-on le signe du produit de deux nombres ? :

3. En utilisant la calculatrice, effectue les produits suivants :

$A = (-4) \times 5 \times (-6) \times (-4) \times 12 \times (-1) \times (-2) = \dots\dots\dots$

$B = 2 \times (-4) \times 8 \times (-4) \times (-2) \times (-1) \times (-4) = \dots\dots\dots$

$C = 3 \times (-4) \times (-4) \times 1 \times (-4) \times (-5) = \dots\dots\dots$

$D = 5 \times (-6) \times (-2) \times (-3) \times 2 \times (-5) \times (-1) \times (-6) = \dots\dots\dots$

Complète :

Si dans un produit, il y a un nombre pair de facteurs négatifs, alors le résultat est

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Exercice n°4 : Multiplier des nombres relatifs

Calcule :

$A = (-4) \times (-5) = \dots\dots\dots$; $B = (-3) \times (+7) = \dots\dots\dots$; $C = (+8) \times (-2) = \dots\dots\dots$

$D = (+4) \times (+5) = \dots\dots\dots$; $E = (-7) \times (+4) = \dots\dots\dots$; $F = (+9) \times (+3) = \dots\dots\dots$

$G = 6 \times (-2) = \dots\dots\dots$; $H = -7 \times (-3) = \dots\dots\dots$; $I = -4 \times 3 = \dots\dots\dots$

$J = -1 \times 6 = \dots\dots\dots$; $K = -8 \times 4 = \dots\dots\dots$; $L = 9 \times (-1) = \dots\dots\dots$

Effectue les calculs suivants :

$M = (-2) \times (+1) \times (-3) \times (+2) \times (-1) = \dots\dots\dots$

$N = (-3) \times (+1) \times (-4) \times (+2) \times (+1) = \dots\dots\dots$

$O = (-1) \times (-3) \times (-2) \times (-2) \times (-4) = \dots\dots\dots$

$P = (-4) \times (-1) \times (+2) \times (-4) \times (-1) = \dots\dots\dots$

Exercice n°5 : Diviser des nombres relatifs

Calcule :

$A = (-12) \div (+3) = \dots\dots\dots$; $B = (+15) \div (-3) = \dots\dots\dots$; $C = (-60) \div (-10) = \dots\dots\dots$

$D = (+18) \div (+3) = \dots\dots\dots$; $E = (-16) \div (-4) = \dots\dots\dots$; $F = (-45) \div (+9) = \dots\dots\dots$

$G = 28 \div (-10) = \dots\dots\dots$; $H = -15 \div (-5) = \dots\dots\dots$; $I = -45 \div 9 = \dots\dots\dots$

$J = -40 \div (-8) = \dots\dots\dots$; $K = 2,8 \div (-100) = \dots\dots\dots$; $L = -32 \div (-4) = \dots\dots\dots$

Exercice n°6 : Les quatre opérations

Calcule :

$A = (-7) \times (-4) = \dots\dots\dots$; $B = (-7) + (-4) = \dots\dots\dots$; $C = (+8) \times (-2) = \dots\dots\dots$

$D = (+8) + (-2) = \dots\dots\dots$; $E = (-6) \times (+4) = \dots\dots\dots$; $F = (-6) + (+4) = \dots\dots\dots$

$G = (+5) \times (+4) = \dots\dots\dots$; $H = (+5) + (+4) = \dots\dots\dots$; $I = -8 \times (-6) = \dots\dots\dots$

$J = -8 + (-6) = \dots\dots\dots$; $K = -8 - (-6) = \dots\dots\dots$; $L = 6 \times (-4) = \dots\dots\dots$

$M = 6 + (-4) = \dots\dots\dots$; $N = 6 - 4 = \dots\dots\dots$; $O = (-8) - (+10) = \dots\dots\dots$

$P = (-8) + (+10) = \dots\dots\dots$; $Q = (-12) \times (+10) = \dots\dots\dots$; $R = (-12) \div (+10) = \dots\dots\dots$

$S = 15 \div (-3) = \dots\dots\dots$; $T = -8 \times 3 = \dots\dots\dots$; $U = 17 - 9 = \dots\dots\dots$

Exercice n°7 : Conduire un calcul

$A = (-6) + (-3) \times (+4)$; $B = (-2) \times (-6) + (-8)$; $C = (-10) \div (-5) - (+6)$

$A = \dots\dots\dots$; $B = \dots\dots\dots$; $C = \dots\dots\dots$

$A = \dots\dots\dots$; $B = \dots\dots\dots$; $C = \dots\dots\dots$

$D = (+18) - (-25) \div (+5)$; $E = -6 + 2 \times (-4)$; $F = -5 \times (-2) - 7$

$D = \dots\dots\dots$; $E = \dots\dots\dots$; $F = \dots\dots\dots$

$D = \dots\dots\dots$; $E = \dots\dots\dots$; $F = \dots\dots\dots$

$G = 16 \div (-2) - 7$; $H = -12 + 8 \div (-2)$

$G = \dots\dots\dots$; $H = \dots\dots\dots$

$G = \dots\dots\dots$; $H = \dots\dots\dots$

Exercice n°8 : Conduire un calcul

$A = 6 \times (-4 + 2,5)$; $B = 4 \div [2 + (1 - 7)]$; $C = (17 - 12) \div (-5)$

$A = \dots\dots\dots$; $B = \dots\dots\dots$; $C = \dots\dots\dots$

$A = \dots\dots\dots$; $B = \dots\dots\dots$; $C = \dots\dots\dots$

$B = \dots\dots\dots$

$D = (-2 - 7) \times 7 - 3$; $E = -25 \div [(10 - 12) \times 5]$; $F = -3 \times [(5 - (-2)) \div (-0,5)]$

$D = \dots\dots\dots$; $E = \dots\dots\dots$; $F = \dots\dots\dots$

$D = \dots\dots\dots$; $E = \dots\dots\dots$; $F = \dots\dots\dots$

$D = \dots\dots\dots$; $E = \dots\dots\dots$; $F = \dots\dots\dots$