

Opérations sur les nombres entiers

Effectue les chaînes d'opérations suivantes (démarche obligatoire). Le corrigé est disponible sur le site internet du cours (Chapitre 1/Documents).

$$\begin{aligned} \text{a) } (8 - 3 \times 4)^2 &= \\ (8 - 12)^2 &= \\ (-4)^2 &= \\ \mathbf{16} & \end{aligned}$$

$$\begin{aligned} \text{b) } -3 \times 2^2 + (-4 + 3)^5 &= \\ -3 \times 2^2 + (-1)^5 &= \\ -3 \times 4 + -1 &= \\ -12 + -1 &= \\ \mathbf{-13} & \end{aligned}$$

$$\begin{aligned} \text{c) } (-3)^3 \times (-8 + 6) \div -9 &= \\ -27 \times -2 \div -9 &= \\ 54 \div -9 &= \\ \mathbf{-6} & \end{aligned}$$

$$\begin{aligned} \text{d) } -7 + 2 \times (-5)^2 &= \\ -7 + 2 \times 25 &= \\ -7 + 50 &= \\ \mathbf{43} & \end{aligned}$$

$$\begin{aligned} \text{e) } (-12 + 3 \times 5^0)^2 &= \\ (-12 + 3 \times 1)^2 &= \\ (-12 + 3)^2 &= \\ (-9)^2 &= \\ \mathbf{81} & \end{aligned}$$

$$\begin{aligned} \text{f) } (5 - 9) \div (-1)^7 \times -5 &= \\ (-4) \div -1 \times -5 &= \\ 4 \times -5 &= \\ \mathbf{-20} & \end{aligned}$$

$$\begin{aligned} \text{g) } (-8 + 5)^2 - 2 \times (4 - 3^2) &= \\ (-3)^2 - 2 \times (4 - 9) &= \\ 9 - 2 \times -5 &= \\ 9 + 10 &= \\ \mathbf{19} & \end{aligned}$$

$$\begin{aligned} \text{h) } 126 \div (-2^4 - 2) &= \\ 126 \div (-16 - 2) &= \\ 126 \div -18 &= \\ \mathbf{-7} & \end{aligned}$$

$$\begin{aligned} \text{i) } -7 + 3 \times (-2)^3 &= \\ -7 + 3 \times -8 &= \\ -7 + -24 &= \\ \mathbf{-31} & \end{aligned}$$

$$\begin{aligned} \text{j) } -6 + 3 \times (-6 + 7 \times (-8 + 5)) &= \\ -6 + 3 \times (-6 + 7 \times -3) &= \\ -6 + 3 \times (-6 + -21) &= \\ -6 + 3 \times -27 &= \\ -6 + -81 &= \\ \mathbf{-87} & \end{aligned}$$

$$\begin{aligned} \text{k) } (-7 + 4) \times ((6 - 9)^2 + (3 - 2 \times 3^2)) &= \\ -3 \times ((-3)^2 + (3 - 2 \times 9)) &= \\ -3 \times (9 + (3 - 18)) &= \\ -3 \times (9 + -15) &= \\ -3 \times -6 &= \\ \mathbf{18} & \end{aligned}$$

$$\begin{aligned} \text{l) } -54 \div (-19 + 5^2) + 4 \times -2^3 &= \\ -54 \div (-19 + 25) + 4 \times -8 &= \\ -54 \div 6 + 4 \times -8 &= \\ -9 + -32 &= \\ \mathbf{-41} & \end{aligned}$$

$$\begin{aligned}
 \text{m)} \quad & (15 - 2 \times 3^2) \times (3 - 2 \times 5) = \\
 & (15 - 2 \times 9) \times (3 - 10) = \\
 & (15 - 18) \times -7 = \\
 & -3 \times -7 = \\
 & \quad \quad \quad \mathbf{21}
 \end{aligned}$$

$$\begin{aligned}
 \text{n)} \quad & -24 \div (-8 + 2) \times 2^3 = \\
 & -24 \div -6 \times 8 = \\
 & \quad \quad \quad 4 \times 8 = \\
 & \quad \quad \quad \mathbf{32}
 \end{aligned}$$

$$\begin{aligned}
 \text{o)} \quad & (2 - 5)^3 - 2 \times (8 - 5 \times 6) = \\
 & (-3)^3 - 2 \times (8 - 30) = \\
 & -27 - 2 \times -22 = \\
 & -27 - -44 = \\
 & \quad \quad \quad \mathbf{17}
 \end{aligned}$$

$$\begin{aligned}
 \text{p)} \quad & \frac{2 \times ((-2 + 5 \times 2) \div 2^2 \times (6 - 9))}{(4 - 2 \times 3) \times (10 - 2 \times 2^3)} = \\
 & \frac{2 \times ((-2 + 10) \div 4 \times -3)}{(4 - 6) \times (10 - 2 \times 8)} = \\
 & \frac{2 \times (8 \div 4 \times -3)}{-2 \times (10 - 16)} = \\
 & \frac{2 \times (2 \times -3)}{-2 \times -6} = \\
 & \frac{2 \times -6}{12} = \\
 & \frac{-12}{12} = \\
 & \quad \quad \quad \mathbf{-1}
 \end{aligned}$$