

Règles de calcul

1 Priorités opératoires

Exercice 1.1 : Compléter chaque calcul en deux étapes, en respectant les priorités opératoires.

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|----------------------|---------------------|-------------------------------|------------------------|-------------------------|--------------------------------|
| $A = 5 + 6 \times 3$ | $B = 8 - 10 \div 2$ | $C = 6 \times 8 + 3 \times 5$ | $D = 7 \times (3 + 8)$ | $E = (3 + 10) \times 2$ | $F = 15 \times 3 - 8 \times 2$ |
| $A = 5 + 18$ | $B = 8 - 5$ | $C = 48 + 15$ | $D = 7 \times 11$ | $E = 13 \times 2$ | $F = 45 - 16$ |
| $A = 23$ | $B = 3$ | $C = 63$ | $D = 77$ | $E = 26$ | $F = 29$ |

Exercice 1.2 : Compléter directement, en effectuant le calcul de tête.

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|---------------|--------------|--------------|--------------|--------------|---------------|
| $A = 10 - 13$ | $B = -8 + 1$ | $C = -7 - 3$ | $D = -8 + 2$ | $E = -1 - 1$ | $F = -7 + 11$ |
| $A = -3$ | $B = -7$ | $C = -10$ | $D = -6$ | $E = -2$ | $F = 4$ |

Exercice 1.3 : Compléter directement, en effectuant le calcul de tête. Déterminer d'abord le signe du résultat !

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|-------------------|-----------------------|--------------------|--------------------|---------------------|----------------------|
| $A = -6 \times 3$ | $B = -2 \times (-10)$ | $C = 12 \div (-3)$ | $D = -3 \times 13$ | $E = 8 \times (-8)$ | $F = -9 \times (-9)$ |
| $A = -18$ | $B = 20$ | $C = -4$ | $D = -39$ | $E = -64$ | $F = 81$ |

Exercice 1.4 : Compléter chaque calcul en deux étapes, en respectant les priorités opératoires.

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|-----------------------|----------------------|-------------------------|------------------------|------------------------|--------------------------|
| $A = -6 \times 3 + 2$ | $B = 6 - 8 \times 2$ | $C = 1 + 3 \times (-7)$ | $D = 20 \div (-3 - 1)$ | $E = (3 - 5) \times 6$ | $F = 13 - 6 \times (-2)$ |
| $A = -18 + 2$ | $B = 6 - 16$ | $C = 1 + (-21)$ | $D = 20 \div (-4)$ | $E = -2 \times 6$ | $F = 13 - (-12)$ |
| $A = -16$ | $B = -10$ | $C = -20$ | $D = -5$ | $E = -12$ | $F = 25$ |

2 Fractions

Exercice 1.5 : Simplifier au maximum les fractions suivantes :

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|-------------------------------------|-------------------------------------|---|---|---------------------------------------|---|
| $A = \frac{7 \times 3}{7 \times 8}$ | $B = \frac{6 \times 2}{7 \times 6}$ | $C = \frac{3 \times 3 \times 11}{11 \times 5 \times 3}$ | $D = \frac{10 \times 4 \times 5}{5 \times 11 \times 3}$ | $E = \frac{7}{2} \times \frac{2}{10}$ | $F = \frac{14}{2} \times \frac{2}{10} \times \frac{13}{14}$ |
| $A = \frac{3}{8}$ | $B = \frac{2}{7}$ | $C = \frac{3}{5}$ | $D = \frac{40}{33}$ | $E = \frac{7}{10}$ | $F = \frac{13}{10}$ |
| $G = \frac{10}{5} = \frac{2}{1}$ | $H = \frac{21}{9} = \frac{7}{3}$ | $I = \frac{49}{7} = \frac{7}{1}$ | $J = \frac{80}{100} = \frac{4}{5}$ | $K = \frac{11}{66} = \frac{1}{6}$ | $L = \frac{42}{36} = \frac{7}{6}$ |

Exercice 1.6 : Compléter les calculs puis simplifier les fractions si possible :

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|-------------------------------------|-------------------------------------|---|--------------------------------------|---------------------------|-----------------------------------|
| $A = \frac{7+2}{7-3} = \frac{9}{4}$ | $B = \frac{5+1}{3+5} = \frac{3}{4}$ | $C = \frac{3 \times 3}{3+8} = \frac{9}{11}$ | $D = \frac{2-7}{2+1} = -\frac{5}{3}$ | $E = \frac{8-8}{4} = 0$ | $F = \frac{15-2}{9+4} = 1$ |
| $G = \frac{8-11}{-1-7}$ | $H = \frac{10 \times 17}{2}$ | $I = \frac{4-3 \times 6}{-1+15}$ | $J = \frac{-8 \times (-7)}{-2}$ | $K = \frac{-10+2}{-10-2}$ | $L = \frac{-6 \times (-3)}{-6-3}$ |
| $G = \frac{-3}{-8}$ | $H = \frac{170}{2}$ | $I = \frac{-14}{14}$ | $J = \frac{56}{-2}$ | $K = \frac{-8}{-12}$ | $L = \frac{18}{-9}$ |
| $G = \frac{3}{8}$ | $H = 85$ | $I = -1$ | $J = -28$ | $K = \frac{2}{3}$ | $L = -2$ |