

Nom: \_\_\_\_\_

## Opérations sur les nombres entiers et les fractions – Exercice #1

1. Évaluer sans calculatrice.

$$a) (-1) + (-2) = -3$$

$$d) (-2) + 2 = 0$$

$$g) 1 + (+6) = 7$$

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

$$m) (-5) + (-2) = -7$$

$$p) 2 + (+6) = 8$$

$$s) 7 + (-6) = 1$$

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

$$y) 6 + (+5) = 11$$

$$bb) (-5) - 2 = -7$$

$$ee) 1 + (+7) = 8$$

$$b) (-2) - 7 = -9$$

$$e) (-8) + 7 = -1$$

$$h) (-1) - 6 = -7$$

$$k) (-4) + (-6) = -10$$

$$n) (-7) + 2 = -5$$

$$q) (-6) + 2 = -4$$

$$t) 3 - 2 = 1$$

$$w) (-3) + 2 = -1$$

$$z) 2 + (-1) = 1$$

$$cc) (-7) + (+6) = -1$$

$$ff) (-5) + 7 = 2$$

$$c) 6 + (+6) = 12$$

$$f) 7 + (+2) = 9$$

$$i) (-3) + (-7) = -10$$

$$l) 5 - 2 = 3$$

$$o) 5 + (-2) = 3$$

$$r) 4 - 6 = -2$$

$$u) (-1) + (-7) = -8$$

$$x) 2 - 7 = -5$$

$$aa) (-3) + (+2) = -1$$

$$dd) (-5) - 2 = -7$$

$$gg) 4 + (+2) = 6$$

2. Évaluer sans calculatrice. Montrer votre travail.

$$\begin{aligned} a) 20 \div 5 + 3 \\ &= 4 + 3 \\ &= 7 \end{aligned}$$

$$\begin{aligned} d) (7 - 5) \times 3 \\ &= (2)(3) \\ &= 6 \end{aligned}$$

$$\begin{aligned} g) 8 \times 7 - 4 \times 3 \\ &= 56 - 12 \\ &= 44 \end{aligned}$$

$$\begin{aligned} j) 10^2 - 25 \\ &= 100 - 25 \\ &= 75 \end{aligned}$$

$$\begin{aligned} m) 6^2 + 5 - 3^2 \\ &= 36 + 5 - 9 \\ &= 41 - 9 \\ &= 32 \end{aligned}$$

$$\begin{aligned} p) 8 - 2^3 \\ &= 8 - 8 \\ &= 0 \end{aligned}$$

$$\begin{aligned} s) 14 - 36 \div 2^2 \\ &= 14 - 36 \div 4 \\ &= 14 - 9 \\ &= 5 \end{aligned}$$

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$$\begin{aligned} b) 15 - 4 \times 2 \\ &= 15 - 8 \\ &= 7 \end{aligned}$$

$$\begin{aligned} e) 12 \div (4 - 1) \\ &= 12 \div 3 \\ &= 4 \end{aligned}$$

$$\begin{aligned} h) 15 - (3 + 2) \times 3 \\ &= 15 - (5) \times 3 \\ &= 15 - 15 \\ &= 0 \end{aligned}$$

$$\begin{aligned} k) 12 + 5^2 - 36 \\ &= 12 + 25 - 36 \\ &= 37 - 36 \\ &= 1 \end{aligned}$$

$$\begin{aligned} n) 4^2 \times 2 - 15 \\ &= 16 \times 2 - 15 \\ &= 32 - 15 \\ &= 17 \end{aligned}$$

$$\begin{aligned} q) (8 - 2)^3 \\ &= (6)^3 \\ &= 216 \end{aligned}$$

$$\begin{aligned} t) 3 \times (5^2 - 4^2) \\ &= 3 \times (25 - 16) \\ &= 3 \times (9) \\ &= 27 \end{aligned}$$

$$\begin{aligned} c) 4 \times 7 - 10 \\ &= 28 - 10 \\ &= 18 \end{aligned}$$

$$\begin{aligned} f) 4 \times (10 - 7) \\ &= 4 \times 3 \\ &= 12 \end{aligned}$$

$$\begin{aligned} i) (2 - 3) \times 8 + 9 \\ &= (-1) \times 8 + 9 \\ &= -8 + 9 \\ &= 1 \end{aligned}$$

$$\begin{aligned} l) 2^3 + 5 \times 4 \\ &= 8 + 20 \\ &= 28 \end{aligned}$$

$$\begin{aligned} o) 2^2 \times (13 - 5) \\ &= 4 \times (8) \\ &= 32 \end{aligned}$$

$$\begin{aligned} r) (9 - 2)^2 + 2 \\ &= (7)^2 + 2 \\ &= 49 + 2 = 51 \end{aligned}$$

$$\begin{aligned} u) 3^2 \times (8 + 1) \div 3 \\ &= 9 \times (9) \div 3 \\ &= 81 \div 3 \\ &= 27 \end{aligned}$$

3. Évaluer chaque expression. Simplifier si nécessaire.

$$a) \frac{7}{4} \times \frac{1}{3} = \frac{7}{12}$$

$$b) 2 \times \frac{1}{2} = \frac{2}{2} = 1$$

$$c) \frac{4}{3} \times \frac{2}{3} = \frac{8}{9}$$

$$d) \frac{1}{5} \times \frac{4}{3} = \frac{4}{15}$$

$$e) \frac{5}{6} \times \frac{3}{4} = \frac{15}{24} = \frac{5}{8}$$

$$f) \frac{3}{4} \times \frac{1}{6} = \frac{3}{24} = \frac{1}{8}$$

$$g) \frac{8}{5} \div \frac{4}{5} = \frac{8}{5} \times \frac{5}{4} = \frac{8}{4} = 2$$

$$h) \frac{1}{2} \times 8 = \frac{8}{2} = 4$$

$$i) \frac{5}{6} \div \frac{1}{4} = \frac{5}{6} \times \frac{4}{1} = \frac{20}{6} = \frac{10}{3}$$

$$j) \frac{3}{2} \div \frac{3}{4} = \frac{3}{2} \times \frac{4}{3} = \frac{12}{6} = 2$$

$$k) \frac{7}{9} \times \frac{5}{7} = \frac{35}{63} = \frac{5}{9}$$

$$l) \frac{2}{3} \div \frac{3}{8} = \frac{2}{3} \times \frac{8}{3} = \frac{16}{9}$$

$$m) \frac{2}{3} \div \frac{4}{1} = \frac{2}{3} \times \frac{1}{4} = \frac{2}{12} = \frac{1}{6}$$

$$n) \frac{7}{8} - \frac{3}{8} = \frac{4}{8} = \frac{1}{2}$$

$$o) \frac{2^{x^2}}{3 \times 6} = \frac{4}{6} - \frac{1}{6} = \frac{3}{6} = \frac{1}{2}$$

$$p) \frac{3^{x^2}}{2 \times 4} + \frac{5}{4} = \frac{6}{4} + \frac{5}{4} = \frac{11}{4}$$

$$q) \frac{4^{x^4} \times 1^{x^5}}{5 \times 4 \times 5} = \frac{16}{20} - \frac{5}{20} = \frac{11}{20}$$

$$r) \frac{1^{x^5}}{2 \times 5} + \frac{9^{x^2}}{5 \times 2} = \frac{5}{10} + \frac{18}{10} = \frac{23}{10}$$

$$s) \frac{4^{x^4}}{5 \times 4} + \frac{5^{x^5}}{4 \times 5} = \frac{16}{20} + \frac{25}{20} = \frac{41}{20}$$

$$t) \frac{2^{x^5}}{3 \times 5} + \frac{2^{x^3}}{5 \times 3} = \frac{10}{15} + \frac{6}{15} = \frac{16}{15}$$

$$u) \frac{3}{7} - \frac{1}{3} = \frac{9}{21} - \frac{7}{21} = \frac{2}{21}$$

$$v) \frac{2}{1} - \frac{6}{5} = \frac{10}{5} - \frac{6}{5} = \frac{4}{5}$$

$$w) \frac{1}{6} + \frac{5}{6} = \frac{6}{6} = 1$$

$$x) \frac{1}{4} + \frac{1}{2} = \frac{1}{4} + \frac{2}{4} = \frac{3}{4}$$