

Nom :
Classe : 2^{nde} 5

Test n°2
le 11/10/2023

Note :
... / 20

Evaluation des capacités	
	Non Oui
Calculer avec des fractions	☐ ☐

L'utilisation de la calculatrice est interdite.

Exercice : Calculer les expressions suivantes et simplifier les résultats.

$$A = \frac{5}{3} - \frac{-4}{7}$$

$$B = \frac{3}{4} - 2 + \frac{5}{8}$$

$$C = \frac{-9}{15} \times 36 \times \frac{25}{4}$$

$$D = \frac{-28}{9} \div \frac{14}{6}$$

$$E = \frac{\frac{5}{4}}{\frac{3}{3}}$$

$$F = \frac{\frac{5}{4}}{\frac{3}{3}}$$

$$G = \frac{\frac{3}{4} - \frac{5}{3}}{\frac{5}{6}}$$

$$H = 2 + \frac{1}{\frac{1}{4} - 1}$$

$$I = \frac{4}{5} - \frac{2}{5} \div \frac{7}{15}$$

$$J = \frac{\frac{24}{27}}{\frac{18}{45}} \times \frac{2}{3}$$

$$K = 6 \times \frac{2 - \frac{3}{4}}{5}$$

$$L = \frac{2^7 \times (5^3)^2 \times 11^2}{2^8 \times 3 \times 5^4 \times 11}$$

Correction du Test n°2

Exercice : Calculer les expressions suivantes et simplifier les résultats.

$$A = \frac{5}{3} - \frac{-4}{7}$$

$$A = \frac{35}{21} + \frac{12}{21}$$

$$A = \frac{47}{21}$$

$$B = \frac{3}{4} - 2 + \frac{5}{8}$$

$$B = \frac{6}{8} - \frac{16}{8} + \frac{5}{8}$$

$$B = \frac{6 - 16 + 5}{8}$$

$$B = \frac{-5}{8}$$

$$C = \frac{-9}{15} \times 36 \times \frac{25}{4}$$

$$C = \frac{-9 \times 36 \times 25}{15 \times 4}$$

$$C = \frac{-3 \times 3 \times 9 \times 4 \times 5 \times 5}{3 \times 5 \times 4}$$

$$C = \frac{-3 \times 9 \times 5}{1} = -135$$

$$D = \frac{-28}{9} \div \frac{14}{6}$$

$$D = \frac{-28}{9} \times \frac{6}{14}$$

$$D = \frac{-14 \times 2 \times 2 \times 3}{3 \times 3 \times 14}$$

$$D = \frac{-2 \times 2}{3} = \frac{-4}{3}$$

$$E = \frac{\frac{5}{4}}{\frac{3}{3}}$$

$$E = \frac{5}{4} \div 3$$

$$E = \frac{5}{4} \times \frac{1}{3}$$

$$E = \frac{5}{12}$$

$$F = \frac{\frac{5}{4}}{\frac{3}{3}}$$

$$F = 5 \div \frac{4}{3}$$

$$F = 5 \times \frac{3}{4}$$

$$F = \frac{15}{4}$$

$$G = \frac{\frac{3}{4} - \frac{5}{3}}{\frac{5}{6}}$$

$$G = \frac{\frac{9}{12} - \frac{20}{12}}{\frac{5}{6}}$$

$$G = \frac{-11}{12} \div \frac{5}{6}$$

$$G = \frac{-11}{12} \times \frac{6}{5}$$

$$G = \frac{-11 \times 6}{6 \times 2 \times 5} = \frac{-11}{10}$$

$$H = 2 + \frac{1}{\frac{1}{4} - 1}$$

$$H = 2 + \frac{1}{\frac{1}{4} - \frac{4}{4}}$$

$$H = 2 + \frac{1}{\frac{-3}{4}}$$

$$H = 2 + 1 \div \frac{-3}{4}$$

$$H = 2 + 1 \times \frac{-4}{3}$$

$$H = 2 - \frac{4}{3}$$

$$H = \frac{6}{3} - \frac{4}{3} = \frac{2}{3}$$

$$I = \frac{4}{5} - \frac{2}{5} \div \frac{7}{15}$$

$$I = \frac{4}{5} - \frac{2}{5} \times \frac{15}{7}$$

$$I = \frac{4}{5} - \frac{2}{5} \times \frac{3 \times 5}{7}$$

$$I = \frac{4}{5} - \frac{6}{7}$$

$$I = \frac{28}{35} - \frac{30}{35}$$

$$I = \frac{-2}{35}$$

$$J = \frac{\frac{24}{27} \times \frac{2}{3}}{\frac{45}{45}}$$

$$J = \frac{24}{27} \div \frac{18}{45} \times \frac{2}{3}$$

$$J = \frac{24}{27} \times \frac{45}{18} \times \frac{2}{3}$$

$$J = \frac{6 \times 4 \times 5 \times 9 \times 2}{3 \times 9 \times 6 \times 3 \times 3}$$

$$J = \frac{4 \times 5 \times 2}{3 \times 3 \times 3}$$

$$J = \frac{40}{27}$$

$$K = 6 \times \frac{2 - \frac{3}{4}}{5}$$

$$K = 6 \times \frac{\frac{8}{4} - \frac{3}{4}}{5}$$

$$K = 6 \times \frac{\frac{5}{4}}{5}$$

$$K = 6 \times \frac{5}{4} \div 5$$

$$K = 6 \times \frac{5}{4} \times \frac{1}{5}$$

$$K = \frac{6}{4} = \frac{3}{2}$$

$$L = \frac{2^7 \times (5^3)^2 \times 11^2}{2^8 \times 3 \times 5^4 \times 11}$$

$$L = \frac{2^7 \times 5^{3 \times 2} \times 11^{2-1}}{2 \times 2^7 \times 3 \times 5^4}$$

$$L = \frac{5^{6-4} \times 11^1}{2 \times 3}$$

$$L = \frac{5^2 \times 11}{6}$$

$$L = \frac{25 \times 11}{6} = \frac{275}{6}$$