

Devoir n°4 - Calculs avec des fractions - 4ème

11 novembre 2015 - 30 min

Calculatrice interdite

Calculer en détaillant et donner le résultat sous la forme d'une fraction irréductible :

$$A = -\frac{5}{6} + \frac{1}{3}$$

$$B = \frac{-5}{2} \times \frac{8}{-7}$$

$$C = \frac{8}{5} \times \frac{-5}{21} \times \frac{-9}{16}$$

$$D = \frac{2}{3} \div (-4)$$

$$E = \frac{10}{-\frac{5}{3}}$$

$$F = \frac{7}{3} + \frac{3}{2} \times \frac{-10}{21}$$

$$G = \frac{5}{8} - \frac{3}{4} \div \frac{-9}{16}$$

$$H = \left(\frac{4}{3} - \frac{5}{2}\right) \div \left(-\frac{2}{3} + \frac{3}{4}\right)$$

$$A = -\frac{5}{6} + \frac{2}{6} = \frac{-3}{6} = \left(\frac{-1}{2}\right)$$

$$D = \frac{2}{3} : (-4) \\ = \frac{2}{3} \times \frac{1}{-4} = \frac{-2}{12} = \left(\frac{-1}{6}\right)$$

$$B = \frac{-5 \times 8}{2 \times (-7)} = \frac{40}{-14} = \left(\frac{20}{-7}\right)$$

$$C = \frac{\cancel{8} \times \cancel{5} \times 3 \times \cancel{3}}{\cancel{5} \times \cancel{3} \times 7 \times \cancel{8} \times 2} = \left(\frac{3}{-14}\right)$$

$$E = 10 : \frac{-5}{3} \\ = 10 \times \frac{-3}{5} = \frac{-30}{5} = \left(-6\right)$$

$$F = \frac{7}{3} + \frac{-30}{42} \\ = \frac{7}{3} + \frac{-15}{21} \\ = \frac{49}{21} + \frac{-15}{21} \\ = \left(\frac{34}{21}\right)$$

$$G = \frac{5}{8} - \frac{3}{4} \times \frac{16}{-9} \\ = \frac{5}{8} - \frac{3 \times 16}{4 \times (-3) \times 3} \\ = \frac{5}{8} + \frac{16}{12} \\ = \frac{15}{24} + \frac{32}{24} \\ = \left(\frac{47}{24}\right)$$

$$H = \left(\frac{8}{6} - \frac{5}{6}\right) : \left(-\frac{8}{12} + \frac{9}{12}\right) \\ = \frac{-7}{6} : \frac{1}{12} = \frac{-7}{6} \times 12 = \frac{-7 \times 6 \times 2}{6} = \left(-14\right)$$