

Order of Operations with Fractions (I)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\left(\frac{1}{2}\right)^2 + \frac{2}{9} \times \left(-\frac{1}{4}\right)$$

$$\left(-\frac{1}{9}\right) \div \left(-\frac{1}{2}\right)^2 - \frac{1}{3}$$

$$\left(-\frac{1}{3}\right) - \left(-\frac{4}{5}\right) \times \left(\frac{1}{3}\right)^2$$

$$\left(\left(\frac{5}{6}\right)^2 - \left(-\frac{7}{9}\right)\right) \div \left(-\frac{5}{6}\right)$$

$$\left(\left(-\frac{1}{6}\right) - \frac{5}{6}\right)^2 \times \left(-\frac{3}{4}\right)$$

$$\left(-\frac{1}{2}\right)^2 + \left(-\frac{7}{8}\right) \div \frac{3}{4}$$

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Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\frac{1}{2}\right)^2 + \frac{2}{9} \times \left(-\frac{1}{4}\right) \\ &= \frac{1}{4} + \frac{2}{9} \times \left(-\frac{1}{4}\right) \\ &= \frac{1}{4} + \left(-\frac{1}{18}\right) \\ &= \frac{7}{36} \end{aligned}$$

$$\begin{aligned} & \left(-\frac{1}{9}\right) \div \left(-\frac{1}{2}\right)^2 - \frac{1}{3} \\ &= \left(-\frac{1}{9}\right) \div \frac{1}{4} - \frac{1}{3} \\ &= \left(-\frac{4}{9}\right) - \frac{1}{3} \\ &= -\frac{7}{9} \end{aligned}$$

$$\begin{aligned} & \left(-\frac{1}{3}\right) - \left(-\frac{4}{5}\right) \times \left(\frac{1}{3}\right)^2 \\ &= \left(-\frac{1}{3}\right) - \left(-\frac{4}{5}\right) \times \frac{1}{9} \\ &= \left(-\frac{1}{3}\right) - \left(-\frac{4}{45}\right) \\ &= -\frac{11}{45} \end{aligned}$$

$$\begin{aligned} & \left(\left(\frac{5}{6}\right)^2 - \left(-\frac{7}{9}\right)\right) \div \left(-\frac{5}{6}\right) \\ &= \left(\frac{25}{36} - \left(-\frac{7}{9}\right)\right) \div \left(-\frac{5}{6}\right) \\ &= \frac{53}{36} \div \left(-\frac{5}{6}\right) \\ &= -\frac{53}{30} \\ &= -1\frac{23}{30} \end{aligned}$$

$$\begin{aligned} & \left(\left(-\frac{1}{6}\right) - \frac{5}{6}\right)^2 \times \left(-\frac{3}{4}\right) \\ &= (-1)^2 \times \left(-\frac{3}{4}\right) \\ &= 1 \times \left(-\frac{3}{4}\right) \\ &= -\frac{3}{4} \end{aligned}$$

$$\begin{aligned} & \left(-\frac{1}{2}\right)^2 + \left(-\frac{7}{8}\right) \div \frac{3}{4} \\ &= \frac{1}{4} + \left(-\frac{7}{8}\right) \div \frac{3}{4} \\ &= \frac{1}{4} + \left(-\frac{7}{6}\right) \\ &= -\frac{11}{12} \end{aligned}$$