

Order of Operations with Fractions (J)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

$$\left(-\frac{5}{6}\right) \div \frac{3}{5} + \left(-\frac{2}{3}\right)^2$$

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

$$\left(-\frac{7}{9}\right) \div \left(\frac{1}{2}\right)^3 - \left(-\frac{5}{9}\right)$$

$$\left(-\frac{1}{3}\right) + \left(-\frac{1}{2}\right)^3 \times \frac{7}{9}$$

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

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$$\begin{aligned} & \frac{1}{9} + \left(\frac{1}{2}\right)^3 \div \frac{1}{3} \\ &= \frac{1}{9} + \frac{1}{8} \div \frac{1}{3} \\ &= \frac{1}{9} + \frac{3}{8} \\ &= \frac{35}{72} \end{aligned}$$

$$\begin{aligned} & \left(-\frac{5}{6}\right) \div \frac{3}{5} + \left(-\frac{2}{3}\right)^2 \\ &= \left(-\frac{5}{6}\right) \div \frac{3}{5} + \frac{4}{9} \\ &= \left(-\frac{25}{18}\right) + \frac{4}{9} \\ &= -\frac{17}{18} \end{aligned}$$

$$\begin{aligned} & \left(\left(\frac{3}{4}\right)^2 - \frac{1}{8}\right) \div \left(-\frac{1}{3}\right) \\ &= \left(\frac{9}{16} - \frac{1}{8}\right) \div \left(-\frac{1}{3}\right) \\ &= \frac{7}{16} \div \left(-\frac{1}{3}\right) \\ &= -\frac{21}{16} \\ &= -1\frac{5}{16} \end{aligned}$$

$$\begin{aligned} & \left(-\frac{7}{9}\right) \div \left(\frac{1}{2}\right)^3 - \left(-\frac{5}{9}\right) \\ &= \left(-\frac{7}{9}\right) \div \frac{1}{8} - \left(-\frac{5}{9}\right) \\ &= \left(-\frac{56}{9}\right) - \left(-\frac{5}{9}\right) \\ &= -\frac{17}{3} \\ &= -5\frac{2}{3} \end{aligned}$$

$$\begin{aligned} & \left(-\frac{1}{3}\right) + \left(-\frac{1}{2}\right)^3 \times \frac{7}{9} \\ &= \left(-\frac{1}{3}\right) + \left(-\frac{1}{8}\right) \times \frac{7}{9} \\ &= \left(-\frac{1}{3}\right) + \left(-\frac{7}{72}\right) \\ &= -\frac{31}{72} \end{aligned}$$

$$\begin{aligned} & \left(\left(-\frac{5}{6}\right) + \left(-\frac{1}{2}\right)\right)^2 \div \left(-\frac{1}{4}\right) \\ &= \left(-\frac{4}{3}\right)^2 \div \left(-\frac{1}{4}\right) \\ &= \frac{16}{9} \div \left(-\frac{1}{4}\right) \\ &= -\frac{64}{9} \\ &= -7\frac{1}{9} \end{aligned}$$