

Order of Operations with Fractions (B)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\frac{1}{3} \div \left(\frac{8}{9} - \frac{1}{9} + \frac{2}{5} \right)$$

$$\left(\left(\frac{2}{3} + \frac{4}{5} \right) \div \frac{7}{9} \right) \times \frac{1}{2}$$

$$\frac{2}{9} \div \left(\frac{2}{5} \times \frac{3}{8} + \frac{1}{3} \right)$$

$$\left(\left(\frac{1}{4} - \frac{1}{6} \right) \times \frac{8}{9} \right) \div \frac{7}{9}$$

$$\frac{2}{9} \times \left(\frac{3}{4} - \frac{1}{8} \div \frac{1}{2} \right)$$

$$\frac{8}{9} \div \left(\frac{1}{3} + \frac{5}{8} - \frac{1}{8} \right)$$

$$\frac{5}{6} \div \left(\frac{1}{9} + \frac{5}{8} - \frac{2}{3} \right)$$

$$\frac{3}{4} \times \left(\frac{4}{9} - \frac{3}{8} + \frac{1}{8} \right)$$

$$\frac{5}{9} - \frac{4}{9} \times \left(\frac{1}{4} + \frac{5}{6} \right)$$

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$$\begin{aligned} & \frac{1}{3} \div \left(\frac{8}{9} - \frac{1}{9} + \frac{2}{5} \right) \\ &= \frac{1}{3} \div \left(\frac{7}{9} + \frac{2}{5} \right) \\ &= \frac{1}{3} \div \frac{53}{45} \\ &= \frac{15}{53} \end{aligned}$$

$$\begin{aligned} & \left(\left(\frac{2}{3} + \frac{4}{5} \right) \div \frac{7}{9} \right) \times \frac{1}{2} \\ &= \left(\frac{22}{15} \div \frac{7}{9} \right) \times \frac{1}{2} \\ &= \frac{66}{35} \times \frac{1}{2} \\ &= \frac{33}{35} \end{aligned}$$

$$\begin{aligned} & \frac{2}{9} \div \left(\frac{2}{5} \times \frac{3}{8} + \frac{1}{3} \right) \\ &= \frac{2}{9} \div \left(\frac{3}{20} + \frac{1}{3} \right) \\ &= \frac{2}{9} \div \frac{29}{60} \\ &= \frac{40}{87} \end{aligned}$$

$$\begin{aligned} & \left(\left(\frac{1}{4} - \frac{1}{6} \right) \times \frac{8}{9} \right) \div \frac{7}{9} \\ &= \left(\frac{1}{12} \times \frac{8}{9} \right) \div \frac{7}{9} \\ &= \frac{2}{27} \div \frac{7}{9} \\ &= \frac{2}{21} \end{aligned}$$

$$\begin{aligned} & \frac{2}{9} \times \left(\frac{3}{4} - \frac{1}{8} \div \frac{1}{2} \right) \\ &= \frac{2}{9} \times \left(\frac{3}{4} - \frac{1}{4} \right) \\ &= \frac{2}{9} \times \frac{1}{2} \\ &= \frac{1}{9} \end{aligned}$$

$$\begin{aligned} & \frac{8}{9} \div \left(\frac{1}{3} + \frac{5}{8} - \frac{1}{8} \right) \\ &= \frac{8}{9} \div \left(\frac{23}{24} - \frac{1}{8} \right) \\ &= \frac{8}{9} \div \frac{5}{6} \\ &= \frac{16}{15} \\ &= 1\frac{1}{15} \end{aligned}$$

$$\begin{aligned} & \frac{5}{6} \div \left(\frac{1}{9} + \frac{5}{8} - \frac{2}{3} \right) \\ &= \frac{5}{6} \div \left(\frac{53}{72} - \frac{2}{3} \right) \\ &= \frac{5}{6} \div \frac{5}{72} \\ &= 12 \end{aligned}$$

$$\begin{aligned} & \frac{3}{4} \times \left(\frac{4}{9} - \frac{3}{8} + \frac{1}{8} \right) \\ &= \frac{3}{4} \times \left(\frac{5}{72} + \frac{1}{8} \right) \\ &= \frac{3}{4} \times \frac{7}{36} \\ &= \frac{7}{48} \end{aligned}$$

$$\begin{aligned} & \frac{5}{9} - \frac{4}{9} \times \left(\frac{1}{4} + \frac{5}{6} \right) \\ &= \frac{5}{9} - \frac{4}{9} \times \frac{13}{12} \\ &= \frac{5}{9} - \frac{13}{27} \\ &= \frac{2}{27} \end{aligned}$$