

Order of Operations with Fractions (F)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

$$\left(\frac{3}{4} - \frac{2}{3} + \frac{5}{8}\right) \times \frac{1}{4}$$

$$\left(\frac{3}{4} + \frac{1}{4}\right) \div \left(\frac{3}{5} \times \frac{8}{9}\right)$$

$$\frac{2}{5} \times \left(\frac{1}{2} \div \frac{1}{6} + \frac{5}{6}\right)$$

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

$$\frac{3}{4} \div \left(\frac{5}{6} - \frac{3}{5} + \frac{2}{3}\right)$$

$$\left(\frac{7}{8} \times \frac{1}{9}\right) \div \left(\frac{1}{6} + \frac{5}{8}\right)$$

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

$$\left(\frac{1}{2} - \frac{3}{8} + \frac{2}{3}\right) \times \frac{4}{5}$$

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$$\begin{aligned} & \left(\frac{8}{9} + \frac{3}{8} - \frac{1}{8} \right) \div \frac{1}{9} \\ &= \left(\frac{91}{72} - \frac{1}{8} \right) \div \frac{1}{9} \\ &= \frac{41}{36} \div \frac{1}{9} \\ &= \frac{41}{4} \\ &= 10\frac{1}{4} \end{aligned}$$

$$\begin{aligned} & \left(\frac{3}{4} - \frac{2}{3} + \frac{5}{8} \right) \times \frac{1}{4} \\ &= \left(\frac{1}{12} + \frac{5}{8} \right) \times \frac{1}{4} \\ &= \frac{17}{24} \times \frac{1}{4} \\ &= \frac{17}{96} \end{aligned}$$

$$\begin{aligned} & \left(\frac{3}{4} + \frac{1}{4} \right) \div \left(\frac{3}{5} \times \frac{8}{9} \right) \\ &= 1 \div \left(\frac{3}{5} \times \frac{8}{9} \right) \\ &= 1 \div \frac{8}{15} \\ &= \frac{15}{8} \\ &= 1\frac{7}{8} \end{aligned}$$

$$\begin{aligned} & \frac{2}{5} \times \left(\frac{1}{2} \div \frac{1}{6} + \frac{5}{6} \right) \\ &= \frac{2}{5} \times \left(3 + \frac{5}{6} \right) \\ &= \frac{2}{5} \times \frac{23}{6} \\ &= \frac{23}{15} \\ &= 1\frac{8}{15} \end{aligned}$$

$$\begin{aligned} & \left(\frac{1}{5} + \frac{3}{4} \right) \div \frac{1}{2} \times \frac{2}{5} \\ &= \frac{19}{20} \div \frac{1}{2} \times \frac{2}{5} \\ &= \frac{19}{10} \times \frac{2}{5} \\ &= \frac{19}{25} \end{aligned}$$

$$\begin{aligned} & \frac{3}{4} \div \left(\frac{5}{6} - \frac{3}{5} + \frac{2}{3} \right) \\ &= \frac{3}{4} \div \left(\frac{7}{30} + \frac{2}{3} \right) \\ &= \frac{3}{4} \div \frac{9}{10} \\ &= \frac{5}{6} \end{aligned}$$

$$\begin{aligned} & \left(\frac{7}{8} \times \frac{1}{9} \right) \div \left(\frac{1}{6} + \frac{5}{8} \right) \\ &= \frac{7}{72} \div \left(\frac{1}{6} + \frac{5}{8} \right) \\ &= \frac{7}{72} \div \frac{19}{24} \\ &= \frac{7}{57} \end{aligned}$$

$$\begin{aligned} & \frac{3}{5} \div \left(\frac{8}{9} - \frac{2}{9} + \frac{1}{6} \right) \\ &= \frac{3}{5} \div \left(\frac{2}{3} + \frac{1}{6} \right) \\ &= \frac{3}{5} \div \frac{5}{6} \\ &= \frac{18}{25} \end{aligned}$$

$$\begin{aligned} & \left(\frac{1}{2} - \frac{3}{8} + \frac{2}{3} \right) \times \frac{4}{5} \\ &= \left(\frac{1}{8} + \frac{2}{3} \right) \times \frac{4}{5} \\ &= \frac{19}{24} \times \frac{4}{5} \\ &= \frac{19}{30} \end{aligned}$$