

Order of Operations with Fractions (B)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\left(\frac{7}{8} - \frac{1}{2} \div \left(\frac{8}{9} + \frac{1}{9}\right)^3\right) \times \frac{3}{8}$$

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

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

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

Order of Operations with Fractions (B)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\frac{7}{8} - \frac{1}{2} \div \left(\frac{8}{9} + \frac{1}{9} \right)^3 \right) \times \frac{3}{8} \\ &= \left(\frac{7}{8} - \frac{1}{2} \div \underline{1^3} \right) \times \frac{3}{8} \\ &= \left(\frac{7}{8} - \underline{\frac{1}{2} \div 1} \right) \times \frac{3}{8} \\ &= \left(\underline{\frac{7}{8} - \frac{1}{2}} \right) \times \frac{3}{8} \\ &= \underline{\frac{3}{8} \times \frac{3}{8}} \\ &= \frac{9}{64} \end{aligned}$$

$$\begin{aligned} & \left(\frac{3}{8} + \frac{2}{9} - \frac{1}{9} \right) \div \left(\frac{5}{6} \right)^2 \times \frac{1}{2} \\ &= \left(\underline{\frac{43}{72} - \frac{1}{9}} \right) \div \left(\frac{5}{6} \right)^2 \times \frac{1}{2} \\ &= \frac{35}{72} \div \left(\underline{\frac{5}{6}} \right)^2 \times \frac{1}{2} \\ &= \underline{\frac{35}{72} \div \frac{25}{36}} \times \frac{1}{2} \\ &= \underline{\frac{7}{10} \times \frac{1}{2}} \\ &= \frac{7}{20} \end{aligned}$$

$$\begin{aligned} & \left(\frac{1}{8} + \frac{5}{6} - \left(\frac{1}{3} \right)^2 \times \frac{3}{8} \right) \div \frac{1}{2} \\ &= \left(\frac{1}{8} + \frac{5}{6} - \underline{\frac{1}{9} \times \frac{3}{8}} \right) \div \frac{1}{2} \\ &= \left(\underline{\frac{1}{8} + \frac{5}{6}} - \frac{1}{24} \right) \div \frac{1}{2} \\ &= \left(\underline{\frac{23}{24} - \frac{1}{24}} \right) \div \frac{1}{2} \\ &= \underline{\frac{11}{12} \div \frac{1}{2}} \\ &= \frac{11}{6} \\ &= 1\frac{5}{6} \end{aligned}$$

$$\begin{aligned} & \left(\frac{1}{5} \div \left(\frac{1}{2} \right)^3 \right) \times \frac{3}{4} - \frac{5}{6} + \frac{2}{3} \\ &= \left(\underline{\frac{1}{5} \div \frac{1}{8}} \right) \times \frac{3}{4} - \frac{5}{6} + \frac{2}{3} \\ &= \underline{\frac{8}{5} \times \frac{3}{4}} - \frac{5}{6} + \frac{2}{3} \\ &= \underline{\frac{6}{5} - \frac{5}{6}} + \frac{2}{3} \\ &= \underline{\frac{11}{30} + \frac{2}{3}} \\ &= \frac{31}{30} \\ &= 1\frac{1}{30} \end{aligned}$$