

Order of Operations with Fractions (A)

Name: _____

Date: _____

Solve each expression using the correct order of operations.

$$\left(\left(\frac{1}{5} + \left(-\frac{1}{4} \right) \right) \times \frac{5}{9} \right) \div \left(-\frac{2}{3} \right) - \left(-\frac{1}{6} \right)^2$$

$$\left(-\frac{7}{8} \right) \div \left(\left(-\frac{5}{8} \right) + \left(\frac{1}{8} \right)^2 - \left(-\frac{1}{6} \right) \times \left(-\frac{3}{4} \right) \right)$$

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$$\begin{aligned} & \left(\left(\frac{1}{5} + \left(-\frac{1}{4} \right) \right) \times \frac{5}{9} \right) \div \left(-\frac{2}{3} \right) - \left(-\frac{1}{6} \right)^2 \\ & = \left(\left(-\frac{1}{20} \right) \times \frac{5}{9} \right) \div \left(-\frac{2}{3} \right) - \left(-\frac{1}{6} \right)^2 \\ & = \left(-\frac{1}{36} \right) \div \left(-\frac{2}{3} \right) - \frac{\left(-\frac{1}{6} \right)^2}{1} \\ & = \frac{\left(-\frac{1}{36} \right) \div \left(-\frac{2}{3} \right)}{1} - \frac{1}{36} \\ & = \frac{\frac{1}{24} - \frac{1}{36}}{1} \\ & = \frac{1}{72} \end{aligned}$$

$$\begin{aligned} & \left(-\frac{7}{8} \right) \div \left(\left(-\frac{5}{8} \right) + \frac{\left(\frac{1}{8} \right)^2}{1} - \left(-\frac{1}{6} \right) \times \left(-\frac{3}{4} \right) \right) \\ & = \left(-\frac{7}{8} \right) \div \left(\left(-\frac{5}{8} \right) + \frac{1}{64} - \frac{\left(-\frac{1}{6} \right) \times \left(-\frac{3}{4} \right)}{1} \right) \\ & = \left(-\frac{7}{8} \right) \div \left(\frac{\left(-\frac{5}{8} \right) + \frac{1}{64} - \frac{1}{8}}{1} \right) \\ & = \left(-\frac{7}{8} \right) \div \left(\frac{\left(-\frac{39}{64} \right) - \frac{1}{8}}{1} \right) \\ & = \frac{\left(-\frac{7}{8} \right) \div \left(-\frac{47}{64} \right)}{1} \\ & = \frac{56}{47} \\ & = 1\frac{9}{47} \end{aligned}$$