

## Order of Operations with Fractions (E)

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Simplify each expression using the correct order of operations.

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

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

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

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

# Order of Operations with Fractions (E)

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Date: \_\_\_\_\_

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left( \left( \frac{1}{4} \right)^2 \times \frac{3}{4} \right) \div \left( -\frac{1}{4} \right) - \left( -\frac{2}{5} \right) \\ & = \left( \frac{1}{16} \times \frac{3}{4} \right) \div \left( -\frac{1}{4} \right) - \left( -\frac{2}{5} \right) \\ & = \frac{3}{64} \div \left( -\frac{1}{4} \right) - \left( -\frac{2}{5} \right) \\ & = \left( -\frac{3}{16} \right) - \left( -\frac{2}{5} \right) \\ & = \frac{17}{80} \end{aligned}$$

$$\begin{aligned} & \left( -\frac{4}{9} \right) \times \left( \left( \frac{3}{8} \right)^2 + \frac{3}{4} \right) \div \left( -\frac{1}{8} \right) \\ & = \left( -\frac{4}{9} \right) \times \left( \frac{9}{64} + \frac{3}{4} \right) \div \left( -\frac{1}{8} \right) \\ & = \left( -\frac{4}{9} \right) \times \frac{57}{64} \div \left( -\frac{1}{8} \right) \\ & = \left( -\frac{19}{48} \right) \div \left( -\frac{1}{8} \right) \\ & = \frac{19}{6} \\ & = 3\frac{1}{6} \end{aligned}$$

$$\begin{aligned} & \left( -\frac{2}{9} \right) \div \left( \frac{7}{8} + \left( -\frac{2}{3} \right) - \left( \frac{1}{2} \right)^2 \right) \\ & = \left( -\frac{2}{9} \right) \div \left( \frac{7}{8} + \left( -\frac{2}{3} \right) - \frac{1}{4} \right) \\ & = \left( -\frac{2}{9} \right) \div \left( \frac{5}{24} - \frac{1}{4} \right) \\ & = \left( -\frac{2}{9} \right) \div \left( -\frac{1}{24} \right) \\ & = \frac{16}{3} \\ & = 5\frac{1}{3} \end{aligned}$$

$$\begin{aligned} & \left( \left( \frac{3}{8} + \frac{5}{8} \right) \times \frac{1}{8} \right) \div \left( -\frac{2}{5} \right)^2 \\ & = \left( 1 \times \frac{1}{8} \right) \div \left( -\frac{2}{5} \right)^2 \\ & = \frac{1}{8} \div \left( -\frac{2}{5} \right)^2 \\ & = \frac{1}{8} \div \frac{4}{25} \\ & = \frac{25}{32} \end{aligned}$$