

## Order of Operations with Fractions (A)

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

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

Simplify each expression using the correct order of operations.

$$\left(\left(-\frac{3}{4}\right) + \left(\frac{2}{3}\right)^3 \div \left(-\frac{8}{9}\right) - \left(-\frac{2}{3}\right)\right) \times \left(\left(-\frac{1}{8}\right) + \left(-\frac{4}{5}\right)\right)$$

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

# Order of Operations with Fractions (A)

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

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

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left( \left( -\frac{3}{4} \right) + \left( \frac{2}{3} \right)^3 \div \left( -\frac{8}{9} \right) - \left( -\frac{2}{3} \right) \right) \times \left( \left( -\frac{1}{8} \right) + \left( -\frac{4}{5} \right) \right) \\ &= \left( \left( -\frac{3}{4} \right) + \frac{8}{27} \div \left( -\frac{8}{9} \right) - \left( -\frac{2}{3} \right) \right) \times \left( \left( -\frac{1}{8} \right) + \left( -\frac{4}{5} \right) \right) \\ &= \left( \left( -\frac{3}{4} \right) + \left( -\frac{1}{3} \right) - \left( -\frac{2}{3} \right) \right) \times \left( \left( -\frac{1}{8} \right) + \left( -\frac{4}{5} \right) \right) \\ &= \left( \left( -\frac{13}{12} \right) - \left( -\frac{2}{3} \right) \right) \times \left( \left( -\frac{1}{8} \right) + \left( -\frac{4}{5} \right) \right) \\ &= \left( -\frac{5}{12} \right) \times \left( \left( -\frac{1}{8} \right) + \left( -\frac{4}{5} \right) \right) \\ &= \left( -\frac{5}{12} \right) \times \left( -\frac{37}{40} \right) \\ &= \frac{37}{96} \end{aligned}$$

$$\begin{aligned} & \left( \frac{1}{6} - \frac{2}{3} + \left( -\frac{1}{2} \right) \right)^2 \times \left( \frac{3}{4} \div \frac{1}{4} + \frac{3}{8} \right) \\ &= \left( \left( -\frac{1}{2} \right) + \left( -\frac{1}{2} \right) \right)^2 \times \left( \frac{3}{4} \div \frac{1}{4} + \frac{3}{8} \right) \\ &= (-1)^2 \times \left( \frac{3}{4} \div \frac{1}{4} + \frac{3}{8} \right) \\ &= (-1)^2 \times \left( 3 + \frac{3}{8} \right) \\ &= (-1)^2 \times \frac{27}{8} \\ &= 1 \times \frac{27}{8} \\ &= \frac{27}{8} \\ &= 3\frac{3}{8} \end{aligned}$$