

Order of Operations with Fractions (I)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

$$\left(\frac{1}{6} + \frac{1}{3}\right) \times \left(\left(\frac{8}{9}\right)^2 \div \frac{7}{9}\right)$$

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

$$\left(\left(\frac{5}{9}\right)^2 \div \left(\frac{7}{9} - \frac{1}{3}\right)\right) \times \frac{3}{4}$$

Order of Operations with Fractions (I)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\frac{3}{5} \times \left(\frac{1}{2} \right)^2 \right) \div \left(\frac{2}{9} + \frac{1}{5} \right) \\ &= \left(\frac{3}{5} \times \frac{1}{4} \right) \div \left(\frac{2}{9} + \frac{1}{5} \right) \\ &= \frac{3}{20} \div \left(\frac{2}{9} + \frac{1}{5} \right) \\ &= \frac{3}{20} \div \frac{19}{45} \\ &= \frac{27}{76} \end{aligned}$$

$$\begin{aligned} & \left(\frac{1}{6} + \frac{1}{3} \right) \times \left(\left(\frac{8}{9} \right)^2 \div \frac{7}{9} \right) \\ &= \frac{1}{2} \times \left(\left(\frac{8}{9} \right)^2 \div \frac{7}{9} \right) \\ &= \frac{1}{2} \times \left(\frac{64}{81} \div \frac{7}{9} \right) \\ &= \frac{1}{2} \times \frac{64}{63} \\ &= \frac{32}{63} \end{aligned}$$

$$\begin{aligned} & \frac{2}{5} \div \left(\frac{1}{9} + \frac{1}{4} - \left(\frac{1}{2} \right)^2 \right) \\ &= \frac{2}{5} \div \left(\frac{1}{9} + \frac{1}{4} - \frac{1}{4} \right) \\ &= \frac{2}{5} \div \left(\frac{13}{36} - \frac{1}{4} \right) \\ &= \frac{2}{5} \div \frac{1}{9} \\ &= \frac{18}{5} \\ &= 3\frac{3}{5} \end{aligned}$$

$$\begin{aligned} & \left(\left(\frac{5}{9} \right)^2 \div \left(\frac{7}{9} - \frac{1}{3} \right) \right) \times \frac{3}{4} \\ &= \left(\left(\frac{5}{9} \right)^2 \div \frac{4}{9} \right) \times \frac{3}{4} \\ &= \left(\frac{25}{81} \div \frac{4}{9} \right) \times \frac{3}{4} \\ &= \frac{25}{36} \times \frac{3}{4} \\ &= \frac{25}{48} \end{aligned}$$