

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.

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

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

Order of Operations with Fractions (B)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

$$\left(\left(-\frac{2}{3}\right) \times \left(-\frac{3}{4}\right)^2\right) \div \left(\frac{2}{3} - \left(-\frac{5}{9}\right) + \frac{1}{6} - \left(-\frac{7}{9}\right)\right)$$

Order of Operations with Fractions (B)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\frac{8}{9} \div \left(-\frac{1}{9} \right) \right) \times \frac{1}{3} - \left(-\frac{1}{4} \right) + \left(\frac{1}{2} \right)^2 - \left(-\frac{1}{5} \right) \\ & = (-8) \times \frac{1}{3} - \left(-\frac{1}{4} \right) + \left(\frac{1}{2} \right)^2 - \left(-\frac{1}{5} \right) \\ & = \underline{(-8) \times \frac{1}{3}} - \left(-\frac{1}{4} \right) + \frac{1}{4} - \left(-\frac{1}{5} \right) \\ & = \underline{\left(-\frac{8}{3} \right) - \left(-\frac{1}{4} \right)} + \frac{1}{4} - \left(-\frac{1}{5} \right) \\ & = \underline{\left(-\frac{29}{12} \right) + \frac{1}{4}} - \left(-\frac{1}{5} \right) \\ & = \underline{\left(-\frac{13}{6} \right) - \left(-\frac{1}{5} \right)} \\ & = -\frac{59}{30} \\ & = -1\frac{29}{30} \end{aligned}$$

$$\begin{aligned} & \left(\left(-\frac{2}{3} \right) \times \left(-\frac{3}{4} \right)^2 \right) \div \left(\frac{2}{3} - \left(-\frac{5}{9} \right) + \frac{1}{6} - \left(-\frac{7}{9} \right) \right) \\ & = \left(\left(-\frac{2}{3} \right) \times \frac{9}{16} \right) \div \left(\frac{2}{3} - \left(-\frac{5}{9} \right) + \frac{1}{6} - \left(-\frac{7}{9} \right) \right) \\ & = \left(-\frac{3}{8} \right) \div \left(\frac{2}{3} - \left(-\frac{5}{9} \right) + \frac{1}{6} - \left(-\frac{7}{9} \right) \right) \\ & = \left(-\frac{3}{8} \right) \div \left(\frac{11}{9} + \frac{1}{6} - \left(-\frac{7}{9} \right) \right) \\ & = \left(-\frac{3}{8} \right) \div \left(\frac{25}{18} - \left(-\frac{7}{9} \right) \right) \\ & = \underline{\left(-\frac{3}{8} \right) \div \frac{13}{6}} \\ & = -\frac{9}{52} \end{aligned}$$

Order of Operations with Fractions (C)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (C)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\left(\frac{1}{4} \right)^3 - \left(-\frac{1}{4} \right)^3 + \left(-\frac{1}{2} \right) \right) \times \frac{5}{6} \div \frac{3}{8} \\ & = \left(\frac{1}{64} - \left(-\frac{1}{4} \right)^3 + \left(-\frac{1}{2} \right) \right) \times \frac{5}{6} \div \frac{3}{8} \\ & = \left(\frac{1}{64} - \left(-\frac{1}{64} \right) + \left(-\frac{1}{2} \right) \right) \times \frac{5}{6} \div \frac{3}{8} \\ & = \left(\frac{1}{32} + \left(-\frac{1}{2} \right) \right) \times \frac{5}{6} \div \frac{3}{8} \\ & = \left(-\frac{15}{32} \right) \times \frac{5}{6} \div \frac{3}{8} \\ & = \left(-\frac{25}{64} \right) \div \frac{3}{8} \\ & = -\frac{25}{24} \\ & = -1\frac{1}{24} \end{aligned}$$

$$\begin{aligned} & \left(\left(-\frac{1}{3} \right) + \left(-\frac{5}{6} \right) \right) \times \left(-\frac{3}{4} \right) \div \left(\left(-\frac{1}{8} \right)^2 - \left(\frac{3}{4} \right)^3 \right) \\ & = \left(-\frac{7}{6} \right) \times \left(-\frac{3}{4} \right) \div \left(\left(-\frac{1}{8} \right)^2 - \left(\frac{3}{4} \right)^3 \right) \\ & = \left(-\frac{7}{6} \right) \times \left(-\frac{3}{4} \right) \div \left(\frac{1}{64} - \left(\frac{3}{4} \right)^3 \right) \\ & = \left(-\frac{7}{6} \right) \times \left(-\frac{3}{4} \right) \div \left(\frac{1}{64} - \frac{27}{64} \right) \\ & = \left(-\frac{7}{6} \right) \times \left(-\frac{3}{4} \right) \div \left(-\frac{13}{32} \right) \\ & = \frac{7}{8} \div \left(-\frac{13}{32} \right) \\ & = -\frac{28}{13} \\ & = -2\frac{2}{13} \end{aligned}$$

Order of Operations with Fractions (D)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\left(\left(-\frac{1}{3}\right) - \left(-\frac{8}{9}\right) + \left(-\frac{5}{6}\right)\right) \div \left(\frac{5}{9}\right)^2 \times \left(\left(-\frac{2}{9}\right) + \left(-\frac{1}{4}\right)\right)$$

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

Order of Operations with Fractions (D)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\left(-\frac{1}{3} \right) - \left(-\frac{8}{9} \right) + \left(-\frac{5}{6} \right) \right) \div \left(\frac{5}{9} \right)^2 \times \left(\left(-\frac{2}{9} \right) + \left(-\frac{1}{4} \right) \right) \\ & = \left(\frac{5}{9} + \left(-\frac{5}{6} \right) \right) \div \left(\frac{5}{9} \right)^2 \times \left(\left(-\frac{2}{9} \right) + \left(-\frac{1}{4} \right) \right) \\ & = \left(-\frac{5}{18} \right) \div \left(\frac{5}{9} \right)^2 \times \left(\left(-\frac{2}{9} \right) + \left(-\frac{1}{4} \right) \right) \\ & = \left(-\frac{5}{18} \right) \div \left(\frac{5}{9} \right)^2 \times \left(-\frac{17}{36} \right) \\ & = \left(-\frac{5}{18} \right) \div \frac{25}{81} \times \left(-\frac{17}{36} \right) \\ & = \left(-\frac{9}{10} \right) \times \left(-\frac{17}{36} \right) \\ & = \frac{17}{40} \end{aligned}$$

$$\begin{aligned} & \left(-\frac{3}{4} \right)^2 \div \left(\left(-\frac{1}{2} \right)^2 - \left(-\frac{4}{9} \right) + \frac{5}{9} \times \frac{5}{8} \right) \\ & = \left(-\frac{3}{4} \right)^2 \div \left(\frac{1}{4} - \left(-\frac{4}{9} \right) + \frac{5}{9} \times \frac{5}{8} \right) \\ & = \left(-\frac{3}{4} \right)^2 \div \left(\frac{1}{4} - \left(-\frac{4}{9} \right) + \frac{25}{72} \right) \\ & = \left(-\frac{3}{4} \right)^2 \div \left(\frac{25}{36} + \frac{25}{72} \right) \\ & = \left(-\frac{3}{4} \right)^2 \div \frac{25}{24} \\ & = \frac{9}{16} \div \frac{25}{24} \\ & = \frac{27}{50} \end{aligned}$$

Order of Operations with Fractions (E)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\left(\left(\frac{1}{2}\right)^3 + \left(-\frac{3}{8}\right) - \left(-\frac{1}{2}\right)\right) \times \left(\left(-\frac{4}{9}\right) \div \frac{1}{6}\right)^2$$

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

Order of Operations with Fractions (E)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\left(\frac{1}{2} \right)^3 + \left(-\frac{3}{8} \right) - \left(-\frac{1}{2} \right) \right) \times \left(\left(-\frac{4}{9} \right) \div \frac{1}{6} \right)^2 \\ & = \left(\frac{1}{8} + \left(-\frac{3}{8} \right) - \left(-\frac{1}{2} \right) \right) \times \left(\left(-\frac{4}{9} \right) \div \frac{1}{6} \right)^2 \\ & = \left(\left(-\frac{1}{4} \right) - \left(-\frac{1}{2} \right) \right) \times \left(\left(-\frac{4}{9} \right) \div \frac{1}{6} \right)^2 \\ & = \frac{1}{4} \times \left(\left(-\frac{4}{9} \right) \div \frac{1}{6} \right)^2 \\ & = \frac{1}{4} \times \left(-\frac{8}{3} \right)^2 \\ & = \frac{1}{4} \times \frac{64}{9} \\ & = \frac{16}{9} \\ & = 1\frac{7}{9} \end{aligned}$$

$$\begin{aligned} & \left(\frac{2}{5} \div \left(-\frac{3}{5} \right)^2 \right) \times \left(-\frac{2}{5} \right)^2 - \frac{2}{9} + \left(-\frac{4}{5} \right) \\ & = \left(\frac{2}{5} \div \frac{9}{25} \right) \times \left(-\frac{2}{5} \right)^2 - \frac{2}{9} + \left(-\frac{4}{5} \right) \\ & = \frac{10}{9} \times \left(-\frac{2}{5} \right)^2 - \frac{2}{9} + \left(-\frac{4}{5} \right) \\ & = \frac{10}{9} \times \frac{4}{25} - \frac{2}{9} + \left(-\frac{4}{5} \right) \\ & = \frac{8}{45} - \frac{2}{9} + \left(-\frac{4}{5} \right) \\ & = \left(-\frac{2}{45} \right) + \left(-\frac{4}{5} \right) \\ & = -\frac{38}{45} \end{aligned}$$

Order of Operations with Fractions (F)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\left(-\frac{3}{5}\right)^2 - \left(\frac{3}{5}\right)^2 \times \left(-\frac{4}{9}\right) \div \left(\frac{5}{8} + \frac{7}{8}\right)$$

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

Order of Operations with Fractions (F)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(-\frac{3}{5}\right)^2 - \left(\frac{3}{5}\right)^2 \times \left(-\frac{4}{9}\right) \div \left(\frac{5}{8} + \frac{7}{8}\right) \\ &= \underline{\left(-\frac{3}{5}\right)^2} - \left(\frac{3}{5}\right)^2 \times \left(-\frac{4}{9}\right) \div \frac{3}{2} \\ &= \frac{9}{25} - \underline{\left(\frac{3}{5}\right)^2} \times \left(-\frac{4}{9}\right) \div \frac{3}{2} \\ &= \frac{9}{25} - \underline{\frac{9}{25} \times \left(-\frac{4}{9}\right)} \div \frac{3}{2} \\ &= \frac{9}{25} - \underline{\left(-\frac{4}{25}\right) \div \frac{3}{2}} \\ &= \underline{\frac{9}{25} - \left(-\frac{8}{75}\right)} \\ &= \frac{7}{15} \end{aligned}$$

$$\begin{aligned} & \left(\frac{1}{5}\right)^2 - \frac{3}{4} \times \left(\underline{\left(\frac{2}{5}\right)^2} \div \left(-\frac{2}{3}\right) + \frac{4}{5}\right) \\ &= \left(\frac{1}{5}\right)^2 - \frac{3}{4} \times \left(\underline{\frac{4}{25} \div \left(-\frac{2}{3}\right)} + \frac{4}{5}\right) \\ &= \left(\frac{1}{5}\right)^2 - \frac{3}{4} \times \left(\underline{\left(-\frac{6}{25}\right) + \frac{4}{5}}\right) \\ &= \underline{\left(\frac{1}{5}\right)^2} - \frac{3}{4} \times \frac{14}{25} \\ &= \frac{1}{25} - \frac{3}{4} \times \frac{14}{25} \\ &= \underline{\frac{1}{25} - \frac{21}{50}} \\ &= -\frac{19}{50} \end{aligned}$$

Order of Operations with Fractions (G)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (G)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \frac{4}{5} \div \left(\frac{1}{9} \times \frac{3}{5} - \left(-\frac{1}{3}\right) + \frac{1}{5} \right)^2 \times \frac{3}{4} \\ &= \frac{4}{5} \div \left(\frac{1}{15} - \left(-\frac{1}{3}\right) + \frac{1}{5} \right)^2 \times \frac{3}{4} \\ &= \frac{4}{5} \div \left(\frac{2}{5} + \frac{1}{5} \right)^2 \times \frac{3}{4} \\ &= \frac{4}{5} \div \left(\frac{3}{5} \right)^2 \times \frac{3}{4} \\ &= \frac{4}{5} \div \frac{9}{25} \times \frac{3}{4} \\ &= \frac{20}{9} \times \frac{3}{4} \\ &= \frac{5}{3} \\ &= 1\frac{2}{3} \end{aligned}$$

$$\begin{aligned} & \frac{4}{5} \times \left(\left(-\frac{2}{3}\right) + \left(-\frac{5}{6}\right)^2 - \left(-\frac{1}{4}\right) \right) \div \left(-\frac{2}{5}\right) \times \frac{5}{9} \\ &= \frac{4}{5} \times \left(\left(-\frac{2}{3}\right) + \frac{25}{36} - \left(-\frac{1}{4}\right) \right) \div \left(-\frac{2}{5}\right) \times \frac{5}{9} \\ &= \frac{4}{5} \times \left(\frac{1}{36} - \left(-\frac{1}{4}\right) \right) \div \left(-\frac{2}{5}\right) \times \frac{5}{9} \\ &= \frac{4}{5} \times \frac{5}{18} \div \left(-\frac{2}{5}\right) \times \frac{5}{9} \\ &= \frac{2}{9} \div \left(-\frac{2}{5}\right) \times \frac{5}{9} \\ &= \left(-\frac{5}{9}\right) \times \frac{5}{9} \\ &= -\frac{25}{81} \end{aligned}$$

Order of Operations with Fractions (H)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

$$\left(\left(-\frac{2}{5}\right) \div \left(\frac{3}{5}\right)^2 \times \left(\frac{4}{9} + \left(-\frac{2}{3}\right) - \frac{7}{9}\right)\right) \div \frac{3}{8}$$

Order of Operations with Fractions (H)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\frac{4}{5} + \left(\frac{1}{5} \right)^2 \div \left(-\frac{2}{5} \right) - \left(-\frac{1}{4} \right) \right) \times \left(-\frac{2}{3} \right)^2 \\ &= \left(\frac{4}{5} + \frac{1}{25} \div \left(-\frac{2}{5} \right) - \left(-\frac{1}{4} \right) \right) \times \left(-\frac{2}{3} \right)^2 \\ &= \left(\frac{4}{5} + \left(-\frac{1}{10} \right) - \left(-\frac{1}{4} \right) \right) \times \left(-\frac{2}{3} \right)^2 \\ &= \left(\frac{7}{10} - \left(-\frac{1}{4} \right) \right) \times \left(-\frac{2}{3} \right)^2 \\ &= \frac{19}{20} \times \left(-\frac{2}{3} \right)^2 \\ &= \frac{19}{20} \times \frac{4}{9} \\ &= \frac{19}{45} \end{aligned}$$

$$\begin{aligned} & \left(\left(-\frac{2}{5} \right) \div \left(\frac{3}{5} \right)^2 \times \left(\frac{4}{9} + \left(-\frac{2}{3} \right) - \frac{7}{9} \right) \right) \div \frac{3}{8} \\ &= \left(\left(-\frac{2}{5} \right) \div \left(\frac{3}{5} \right)^2 \times \left(\left(-\frac{2}{9} \right) - \frac{7}{9} \right) \right) \div \frac{3}{8} \\ &= \left(\left(-\frac{2}{5} \right) \div \left(\frac{3}{5} \right)^2 \times (-1) \right) \div \frac{3}{8} \\ &= \left(\left(-\frac{2}{5} \right) \div \frac{9}{25} \times (-1) \right) \div \frac{3}{8} \\ &= \left(\left(-\frac{10}{9} \right) \times (-1) \right) \div \frac{3}{8} \\ &= \frac{10}{9} \div \frac{3}{8} \\ &= \frac{80}{27} \\ &= 2\frac{26}{27} \end{aligned}$$

Order of Operations with Fractions (I)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (I)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\left(\frac{3}{4} \right)^2 + \left(-\frac{3}{4} \right)^2 \div \left(-\frac{2}{5} \right) \right) \times \left(-\frac{2}{9} \right) - \left(-\frac{3}{5} \right) \\ &= \left(\frac{9}{16} + \left(-\frac{3}{4} \right)^2 \div \left(-\frac{2}{5} \right) \right) \times \left(-\frac{2}{9} \right) - \left(-\frac{3}{5} \right) \\ &= \left(\frac{9}{16} + \frac{9}{16} \div \left(-\frac{2}{5} \right) \right) \times \left(-\frac{2}{9} \right) - \left(-\frac{3}{5} \right) \\ &= \left(\frac{9}{16} + \left(-\frac{45}{32} \right) \right) \times \left(-\frac{2}{9} \right) - \left(-\frac{3}{5} \right) \\ &= \left(-\frac{27}{32} \right) \times \left(-\frac{2}{9} \right) - \left(-\frac{3}{5} \right) \\ &= \frac{3}{16} - \left(-\frac{3}{5} \right) \\ &= \frac{63}{80} \end{aligned}$$

$$\begin{aligned} & \left(-\frac{3}{8} \right) \times \left(\left(-\frac{1}{3} \right) \div \frac{1}{3} + \left(-\frac{2}{3} \right)^2 - \left(-\frac{8}{9} \right) \right)^3 \\ &= \left(-\frac{3}{8} \right) \times \left(\left(-\frac{1}{3} \right) \div \frac{1}{3} + \frac{4}{9} - \left(-\frac{8}{9} \right) \right)^3 \\ &= \left(-\frac{3}{8} \right) \times \left((-1) + \frac{4}{9} - \left(-\frac{8}{9} \right) \right)^3 \\ &= \left(-\frac{3}{8} \right) \times \left(\left(-\frac{5}{9} \right) - \left(-\frac{8}{9} \right) \right)^3 \\ &= \left(-\frac{3}{8} \right) \times \left(\frac{1}{3} \right)^3 \\ &= \left(-\frac{3}{8} \right) \times \frac{1}{27} \\ &= -\frac{1}{72} \end{aligned}$$

Order of Operations with Fractions (J)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

$$\left(\frac{3}{8} - \left(-\frac{7}{9}\right) + \left(-\frac{7}{8}\right) \div \frac{7}{9} \times \left(-\frac{5}{9}\right)\right) \times \left(-\frac{1}{4}\right)^3$$

Order of Operations with Fractions (J)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\left(-\frac{5}{9} \right) \div \left(\frac{2}{3} \right)^2 \right) \times \left(\left(-\frac{1}{2} \right) + \frac{5}{8} - \frac{5}{9} - \left(-\frac{3}{8} \right) \right) \\ &= \left(\left(-\frac{5}{9} \right) \div \frac{4}{9} \right) \times \left(\left(-\frac{1}{2} \right) + \frac{5}{8} - \frac{5}{9} - \left(-\frac{3}{8} \right) \right) \\ &= \left(-\frac{5}{4} \right) \times \left(\left(-\frac{1}{2} \right) + \frac{5}{8} - \frac{5}{9} - \left(-\frac{3}{8} \right) \right) \\ &= \left(-\frac{5}{4} \right) \times \left(\frac{1}{8} - \frac{5}{9} - \left(-\frac{3}{8} \right) \right) \\ &= \left(-\frac{5}{4} \right) \times \left(\left(-\frac{31}{72} \right) - \left(-\frac{3}{8} \right) \right) \\ &= \left(-\frac{5}{4} \right) \times \left(-\frac{1}{18} \right) \\ &= \frac{5}{72} \end{aligned}$$

$$\begin{aligned} & \left(\frac{3}{8} - \left(-\frac{7}{9} \right) + \left(-\frac{7}{8} \right) \div \frac{7}{9} \times \left(-\frac{5}{9} \right) \right) \times \left(-\frac{1}{4} \right)^3 \\ &= \left(\frac{3}{8} - \left(-\frac{7}{9} \right) + \left(-\frac{9}{8} \right) \times \left(-\frac{5}{9} \right) \right) \times \left(-\frac{1}{4} \right)^3 \\ &= \left(\frac{3}{8} - \left(-\frac{7}{9} \right) + \frac{5}{8} \right) \times \left(-\frac{1}{4} \right)^3 \\ &= \left(\frac{83}{72} + \frac{5}{8} \right) \times \left(-\frac{1}{4} \right)^3 \\ &= \frac{16}{9} \times \left(-\frac{1}{4} \right)^3 \\ &= \frac{16}{9} \times \left(-\frac{1}{64} \right) \\ &= -\frac{1}{36} \end{aligned}$$