

Order of Operations with Fractions (A)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (A)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

$$= \frac{1}{12} \div \frac{1}{3} + \left(\frac{4}{5}\right)^2$$

$$= \frac{1}{12} \div \frac{1}{3} + \frac{16}{25}$$

$$= \frac{1}{4} + \frac{16}{25}$$

$$= \frac{89}{100}$$

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

$$= \left(\frac{2}{3}\right)^2 \div \frac{13}{36} \times \frac{1}{5}$$

$$= \frac{4}{9} \div \frac{13}{36} \times \frac{1}{5}$$

$$= \frac{16}{13} \times \frac{1}{5}$$

$$= \frac{16}{65}$$

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

$$= \left(\frac{3}{4}\right)^3 \div \left(\frac{5}{6} \times \frac{3}{8}\right)$$

$$= \left(\frac{3}{4}\right)^3 \div \frac{5}{16}$$

$$= \frac{27}{64} \div \frac{5}{16}$$

$$= \frac{27}{20}$$

$$= 1\frac{7}{20}$$

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

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

$$= \left(\frac{4}{9}\right)^2 \div \frac{1}{18}$$

$$= \frac{16}{81} \div \frac{1}{18}$$

$$= \frac{32}{9}$$

$$= 3\frac{5}{9}$$

Order of Operations with Fractions (B)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (B)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\frac{5}{6} - \frac{3}{5} \right) \times \left(\left(\frac{5}{8} \right)^2 \div \frac{1}{6} \right) \\ &= \frac{7}{30} \times \left(\left(\frac{5}{8} \right)^2 \div \frac{1}{6} \right) \\ &= \frac{7}{30} \times \left(\frac{25}{64} \div \frac{1}{6} \right) \\ &= \frac{7}{30} \times \frac{75}{32} \\ &= \frac{35}{64} \end{aligned}$$

$$\begin{aligned} & \left(\left(\frac{5}{6} \right)^2 + \frac{5}{9} - \frac{1}{9} \right) \times \frac{4}{5} \\ &= \left(\frac{25}{36} + \frac{5}{9} - \frac{1}{9} \right) \times \frac{4}{5} \\ &= \left(\frac{5}{4} - \frac{1}{9} \right) \times \frac{4}{5} \\ &= \frac{41}{36} \times \frac{4}{5} \\ &= \frac{41}{45} \end{aligned}$$

$$\begin{aligned} & \frac{3}{5} \times \left(\left(\frac{5}{6} \right)^2 + \frac{5}{9} - \frac{1}{2} \right) \\ &= \frac{3}{5} \times \left(\frac{25}{36} + \frac{5}{9} - \frac{1}{2} \right) \\ &= \frac{3}{5} \times \left(\frac{5}{4} - \frac{1}{2} \right) \\ &= \frac{3}{5} \times \frac{3}{4} \\ &= \frac{9}{20} \end{aligned}$$

$$\begin{aligned} & \left(\left(\frac{1}{6} \right)^2 \div \frac{1}{8} + \frac{2}{5} \right) \times \frac{1}{2} \\ &= \left(\frac{1}{36} \div \frac{1}{8} + \frac{2}{5} \right) \times \frac{1}{2} \\ &= \left(\frac{2}{9} + \frac{2}{5} \right) \times \frac{1}{2} \\ &= \frac{28}{45} \times \frac{1}{2} \\ &= \frac{14}{45} \end{aligned}$$

Order of Operations with Fractions (C)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (C)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \frac{2}{9} \times \left(\frac{1}{4} + \frac{1}{5} \div \left(\frac{1}{3} \right)^2 \right) \\ &= \frac{2}{9} \times \left(\frac{1}{4} + \frac{1}{5} \div \frac{1}{9} \right) \\ &= \frac{2}{9} \times \left(\frac{1}{4} + \frac{9}{5} \right) \\ &= \frac{2}{9} \times \frac{41}{20} \\ &= \frac{41}{90} \end{aligned}$$

$$\begin{aligned} & \left(\frac{1}{3} + \frac{7}{9} \right) \times \left(\frac{4}{5} - \left(\frac{3}{5} \right)^2 \right) \\ &= \frac{10}{9} \times \left(\frac{4}{5} - \left(\frac{3}{5} \right)^2 \right) \\ &= \frac{10}{9} \times \left(\frac{4}{5} - \frac{9}{25} \right) \\ &= \frac{10}{9} \times \frac{11}{25} \\ &= \frac{22}{45} \end{aligned}$$

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

$$\begin{aligned} & \left(\frac{5}{8} + \frac{1}{6} - \left(\frac{1}{2} \right)^3 \right) \div \frac{4}{9} \\ &= \left(\frac{5}{8} + \frac{1}{6} - \frac{1}{8} \right) \div \frac{4}{9} \\ &= \left(\frac{19}{24} - \frac{1}{8} \right) \div \frac{4}{9} \\ &= \frac{2}{3} \div \frac{4}{9} \\ &= \frac{3}{2} \\ &= 1\frac{1}{2} \end{aligned}$$

Order of Operations with Fractions (D)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (D)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \frac{2}{9} \times \left(\left(\frac{5}{6} \right)^2 \div \frac{1}{8} - \frac{2}{3} \right) \\ &= \frac{2}{9} \times \left(\frac{25}{36} \div \frac{1}{8} - \frac{2}{3} \right) \\ &= \frac{2}{9} \times \left(\frac{50}{9} - \frac{2}{3} \right) \\ &= \frac{2}{9} \times \frac{44}{9} \\ &= \frac{88}{81} \\ &= 1 \frac{7}{81} \end{aligned}$$

$$\begin{aligned} & \frac{2}{5} \times \left(\frac{5}{6} - \frac{1}{9} + \frac{7}{9} \right)^2 \\ &= \frac{2}{5} \times \left(\frac{13}{18} + \frac{7}{9} \right)^2 \\ &= \frac{2}{5} \times \left(\frac{3}{2} \right)^2 \\ &= \frac{2}{5} \times \frac{9}{4} \\ &= \frac{9}{10} \end{aligned}$$

$$\begin{aligned} & \frac{1}{2} \times \left(\frac{8}{9} - \frac{2}{9} + \left(\frac{1}{4} \right)^2 \right) \\ &= \frac{1}{2} \times \left(\frac{8}{9} - \frac{2}{9} + \frac{1}{16} \right) \\ &= \frac{1}{2} \times \left(\frac{2}{3} + \frac{1}{16} \right) \\ &= \frac{1}{2} \times \frac{35}{48} \\ &= \frac{35}{96} \end{aligned}$$

$$\begin{aligned} & \left(\frac{8}{9} \times \frac{1}{8} \right) \div \frac{1}{6} - \left(\frac{1}{9} \right)^2 \\ &= \frac{1}{9} \div \frac{1}{6} - \frac{1}{9} \\ &= \frac{1}{9} \div \frac{1}{6} - \frac{1}{81} \\ &= \frac{2}{3} - \frac{1}{81} \\ &= \frac{53}{81} \end{aligned}$$

Order of Operations with Fractions (E)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\frac{5}{9} \times \frac{2}{5} \div \left(\left(\frac{1}{6} \right)^2 + \frac{7}{8} \right)$$

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

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

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

Order of Operations with Fractions (E)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \frac{5}{9} \times \frac{2}{5} \div \left(\left(\frac{1}{6} \right)^2 + \frac{7}{8} \right) \\ &= \frac{5}{9} \times \frac{2}{5} \div \left(\frac{1}{36} + \frac{7}{8} \right) \\ &= \frac{5}{9} \times \frac{2}{5} \div \frac{65}{72} \\ &= \frac{2}{9} \div \frac{65}{72} \\ &= \frac{16}{65} \end{aligned}$$

$$\begin{aligned} & \left(\frac{1}{3} - \left(\frac{2}{9} \right)^2 \right) \times \left(\frac{3}{4} \div \frac{2}{3} \right) \\ &= \left(\frac{1}{3} - \frac{4}{81} \right) \times \left(\frac{3}{4} \div \frac{2}{3} \right) \\ &= \frac{23}{81} \times \left(\frac{3}{4} \div \frac{2}{3} \right) \\ &= \frac{23}{81} \times \frac{9}{8} \\ &= \frac{23}{72} \end{aligned}$$

$$\begin{aligned} & \frac{2}{3} \div \left(\left(\frac{5}{6} \right)^2 - \frac{1}{6} + \frac{7}{9} \right) \\ &= \frac{2}{3} \div \left(\frac{25}{36} - \frac{1}{6} + \frac{7}{9} \right) \\ &= \frac{2}{3} \div \left(\frac{19}{36} + \frac{7}{9} \right) \\ &= \frac{2}{3} \div \frac{47}{36} \\ &= \frac{24}{47} \end{aligned}$$

$$\begin{aligned} & \left(\frac{1}{9} + \frac{1}{5} \right) \times \left(\frac{1}{2} \right)^2 \div \frac{2}{3} \\ &= \frac{14}{45} \times \left(\frac{1}{2} \right)^2 \div \frac{2}{3} \\ &= \frac{14}{45} \times \frac{1}{4} \div \frac{2}{3} \\ &= \frac{7}{90} \div \frac{2}{3} \\ &= \frac{7}{60} \end{aligned}$$

Order of Operations with Fractions (F)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

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

$$\left(\frac{4}{9} + \left(\frac{1}{2}\right)^2 - \frac{1}{4}\right) \times \frac{7}{8}$$

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

Order of Operations with Fractions (F)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\frac{7}{9}\right)^2 \div \left(\frac{4}{9} \times \left(\frac{3}{4} + \frac{5}{9}\right)\right) \\ &= \left(\frac{7}{9}\right)^2 \div \left(\frac{4}{9} \times \frac{47}{36}\right) \\ &= \frac{7^2}{9^2} \div \frac{47}{81} \\ &= \frac{49}{81} \div \frac{47}{81} \\ &= \frac{49}{47} \\ &= 1\frac{2}{47} \end{aligned}$$

$$\begin{aligned} & \left(\frac{1}{5} \times \frac{8}{9} - \left(\frac{1}{6}\right)^2\right) \div \frac{3}{5} \\ &= \left(\frac{1}{5} \times \frac{8}{9} - \frac{1}{36}\right) \div \frac{3}{5} \\ &= \left(\frac{8}{45} - \frac{1}{36}\right) \div \frac{3}{5} \\ &= \frac{3}{20} \div \frac{3}{5} \\ &= \frac{1}{4} \end{aligned}$$

$$\begin{aligned} & \left(\frac{4}{9} + \left(\frac{1}{2}\right)^2 - \frac{1}{4}\right) \times \frac{7}{8} \\ &= \left(\frac{4}{9} + \frac{1}{4} - \frac{1}{4}\right) \times \frac{7}{8} \\ &= \left(\frac{25}{36} - \frac{1}{4}\right) \times \frac{7}{8} \\ &= \frac{4}{9} \times \frac{7}{8} \\ &= \frac{7}{18} \end{aligned}$$

$$\begin{aligned} & \frac{2}{5} \div \left(\left(\frac{3}{4}\right)^2 \times \frac{1}{9} + \frac{1}{6}\right) \\ &= \frac{2}{5} \div \left(\frac{9}{16} \times \frac{1}{9} + \frac{1}{6}\right) \\ &= \frac{2}{5} \div \left(\frac{1}{16} + \frac{1}{6}\right) \\ &= \frac{2}{5} \div \frac{11}{48} \\ &= \frac{96}{55} \\ &= 1\frac{41}{55} \end{aligned}$$

Order of Operations with Fractions (G)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (G)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\frac{3}{4} - \left(\frac{1}{4} \right)^2 \right) \times \frac{8}{9} \div \frac{3}{8} \\ & = \left(\frac{3}{4} - \frac{1}{16} \right) \times \frac{8}{9} \div \frac{3}{8} \\ & = \frac{11}{16} \times \frac{8}{9} \div \frac{3}{8} \\ & = \frac{11}{18} \div \frac{3}{8} \\ & = \frac{44}{27} \\ & = 1\frac{17}{27} \end{aligned}$$

$$\begin{aligned} & \left(\frac{7}{8} \times \left(\frac{2}{3} \right)^2 \right) \div \frac{3}{5} - \frac{4}{9} \\ & = \left(\frac{7}{8} \times \frac{4}{9} \right) \div \frac{3}{5} - \frac{4}{9} \\ & = \frac{7}{18} \div \frac{3}{5} - \frac{4}{9} \\ & = \frac{35}{54} - \frac{4}{9} \\ & = \frac{11}{54} \end{aligned}$$

$$\begin{aligned} & \left(\frac{4}{5} + \frac{1}{3} - \left(\frac{2}{3} \right)^2 \right) \div \frac{1}{9} \\ & = \left(\frac{4}{5} + \frac{1}{3} - \frac{4}{9} \right) \div \frac{1}{9} \\ & = \left(\frac{17}{15} - \frac{4}{9} \right) \div \frac{1}{9} \\ & = \frac{31}{45} \div \frac{1}{9} \\ & = \frac{31}{5} \\ & = 6\frac{1}{5} \end{aligned}$$

$$\begin{aligned} & \left(\frac{5}{9} \div \frac{2}{3} - \frac{1}{6} \right)^3 \times \frac{1}{2} \\ & = \left(\frac{5}{6} - \frac{1}{6} \right)^3 \times \frac{1}{2} \\ & = \left(\frac{2}{3} \right)^3 \times \frac{1}{2} \\ & = \frac{8}{27} \times \frac{1}{2} \\ & = \frac{4}{27} \end{aligned}$$

Order of Operations with Fractions (H)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (H)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\frac{2}{5} - \frac{1}{3} \times \frac{3}{5} \right) \div \left(\frac{1}{8} \right)^2 \\ &= \left(\frac{2}{5} - \frac{1}{5} \right) \div \left(\frac{1}{8} \right)^2 \\ &= \frac{1}{5} \div \left(\frac{1}{8} \right)^2 \\ &= \frac{1}{5} \div \frac{1}{64} \\ &= \frac{64}{5} \\ &= 12\frac{4}{5} \end{aligned}$$

$$\begin{aligned} & \left(\frac{2}{9} + \left(\frac{1}{6} \right)^2 \right) \div \left(\frac{2}{5} \times \frac{3}{8} \right) \\ &= \left(\frac{2}{9} + \frac{1}{36} \right) \div \left(\frac{2}{5} \times \frac{3}{8} \right) \\ &= \frac{1}{4} \div \left(\frac{2}{5} \times \frac{3}{8} \right) \\ &= \frac{1}{4} \div \frac{3}{20} \\ &= \frac{5}{3} \\ &= 1\frac{2}{3} \end{aligned}$$

$$\begin{aligned} & \frac{2}{3} \div \left(\frac{3}{8} + \left(\frac{3}{4} \right)^3 \times \frac{4}{9} \right) \\ &= \frac{2}{3} \div \left(\frac{3}{8} + \frac{27}{64} \times \frac{4}{9} \right) \\ &= \frac{2}{3} \div \left(\frac{3}{8} + \frac{3}{16} \right) \\ &= \frac{2}{3} \div \frac{9}{16} \\ &= \frac{32}{27} \\ &= 1\frac{5}{27} \end{aligned}$$

$$\begin{aligned} & \left(\frac{5}{9} \div \frac{4}{9} \right) \times \frac{7}{8} + \left(\frac{1}{4} \right)^3 \\ &= \frac{5}{4} \times \frac{7}{8} + \left(\frac{1}{4} \right)^3 \\ &= \frac{5}{4} \times \frac{7}{8} + \frac{1}{64} \\ &= \frac{35}{32} + \frac{1}{64} \\ &= \frac{71}{64} \\ &= 1\frac{7}{64} \end{aligned}$$

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.

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

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

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

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

Order of Operations with Fractions (J)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (J)

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\frac{1}{2}\right)^2 \div \left(\frac{1}{5} \times \frac{2}{3} + \frac{1}{4}\right) \\ &= \left(\frac{1}{2}\right)^2 \div \left(\frac{2}{15} + \frac{1}{4}\right) \\ &= \frac{\left(\frac{1}{2}\right)^2}{\frac{23}{60}} \\ &= \frac{1}{4} \div \frac{23}{60} \\ &= \frac{15}{23} \end{aligned}$$

$$\begin{aligned} & \frac{1}{4} \times \left(\frac{4}{9} + \frac{4}{5} - \left(\frac{2}{3}\right)^2\right) \\ &= \frac{1}{4} \times \left(\frac{4}{9} + \frac{4}{5} - \frac{4}{9}\right) \\ &= \frac{1}{4} \times \left(\frac{56}{45} - \frac{4}{9}\right) \\ &= \frac{1}{4} \times \frac{4}{5} \\ &= \frac{1}{5} \end{aligned}$$

$$\begin{aligned} & \frac{3}{5} + \frac{4}{5} \times \left(\frac{1}{5} \div \left(\frac{1}{3}\right)^2\right) \\ &= \frac{3}{5} + \frac{4}{5} \times \left(\frac{1}{5} \div \frac{1}{9}\right) \\ &= \frac{3}{5} + \frac{4}{5} \times \frac{9}{5} \\ &= \frac{3}{5} + \frac{36}{25} \\ &= \frac{51}{25} \\ &= 2\frac{1}{25} \end{aligned}$$

$$\begin{aligned} & \left(\left(\frac{7}{9}\right)^2 \div \frac{7}{8} - \frac{2}{9}\right) \times \frac{1}{2} \\ &= \left(\frac{49}{81} \div \frac{7}{8} - \frac{2}{9}\right) \times \frac{1}{2} \\ &= \left(\frac{56}{81} - \frac{2}{9}\right) \times \frac{1}{2} \\ &= \frac{38}{81} \times \frac{1}{2} \\ &= \frac{19}{81} \end{aligned}$$