

## Order of Operations with Fractions (A)

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

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

Simplify each expression using the correct order of operations.

$$\left(\left(\frac{3}{4} - \frac{3}{8}\right) \times \frac{7}{9}\right) \div \left(\frac{5}{6} + \frac{1}{3} + \frac{1}{2}\right)$$

$$\left(\left(\frac{2}{9} + \frac{4}{9}\right) \div \frac{1}{6}\right) \times \frac{7}{8} - \frac{1}{5} \times \frac{5}{6}$$

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

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

# Order of Operations with Fractions (A)

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

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

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left( \left( \frac{3}{4} - \frac{3}{8} \right) \times \frac{7}{9} \right) \div \left( \frac{5}{6} + \frac{1}{3} + \frac{1}{2} \right) \\ &= \left( \frac{3}{8} \times \frac{7}{9} \right) \div \left( \frac{5}{6} + \frac{1}{3} + \frac{1}{2} \right) \\ &= \frac{7}{24} \div \left( \frac{5}{6} + \frac{1}{3} + \frac{1}{2} \right) \\ &= \frac{7}{24} \div \left( \frac{7}{6} + \frac{1}{2} \right) \\ &= \frac{7}{24} \div \frac{5}{3} \\ &= \frac{7}{40} \end{aligned}$$

$$\begin{aligned} & \left( \left( \frac{2}{9} + \frac{4}{9} \right) \div \frac{1}{6} \right) \times \frac{7}{8} - \frac{1}{5} \times \frac{5}{6} \\ &= \left( \frac{2}{3} \div \frac{1}{6} \right) \times \frac{7}{8} - \frac{1}{5} \times \frac{5}{6} \\ &= 4 \times \frac{7}{8} - \frac{1}{5} \times \frac{5}{6} \\ &= \frac{7}{2} - \frac{1}{5} \times \frac{5}{6} \\ &= \frac{7}{2} - \frac{1}{6} \\ &= \frac{10}{3} \\ &= 3\frac{1}{3} \end{aligned}$$

$$\begin{aligned} & \left( \frac{5}{9} + \frac{4}{5} - \frac{2}{5} \right) \div \left( \left( \frac{1}{2} \times \frac{4}{9} \right) \div \frac{1}{9} \right) \\ &= \left( \frac{61}{45} - \frac{2}{5} \right) \div \left( \left( \frac{1}{2} \times \frac{4}{9} \right) \div \frac{1}{9} \right) \\ &= \frac{43}{45} \div \left( \left( \frac{1}{2} \times \frac{4}{9} \right) \div \frac{1}{9} \right) \\ &= \frac{43}{45} \div \left( \frac{2}{9} \div \frac{1}{9} \right) \\ &= \frac{43}{45} \div 2 \\ &= \frac{43}{90} \end{aligned}$$

$$\begin{aligned} & \left( \frac{2}{3} + \frac{2}{9} \right) \div \frac{5}{8} - \frac{5}{9} \times \left( \frac{5}{6} + \frac{1}{6} \right) \\ &= \frac{8}{9} \div \frac{5}{8} - \frac{5}{9} \times \left( \frac{5}{6} + \frac{1}{6} \right) \\ &= \frac{8}{9} \div \frac{5}{8} - \frac{5}{9} \times 1 \\ &= \frac{64}{45} - \frac{5}{9} \times 1 \\ &= \frac{64}{45} - \frac{5}{9} \\ &= \frac{13}{15} \end{aligned}$$

## Order of Operations with Fractions (B)

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

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

Simplify each expression using the correct order of operations.

$$\left(\frac{3}{8} \times \frac{2}{5}\right) \div \left(\frac{4}{5} + \frac{5}{8} - \frac{7}{8}\right) \times \frac{1}{5}$$

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

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

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

# Order of Operations with Fractions (B)

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

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

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left( \frac{3}{8} \times \frac{2}{5} \right) \div \left( \frac{4}{5} + \frac{5}{8} - \frac{7}{8} \right) \times \frac{1}{5} \\ &= \frac{3}{20} \div \left( \frac{4}{5} + \frac{5}{8} - \frac{7}{8} \right) \times \frac{1}{5} \\ &= \frac{3}{20} \div \left( \frac{57}{40} - \frac{7}{8} \right) \times \frac{1}{5} \\ &= \frac{3}{20} \div \frac{11}{20} \times \frac{1}{5} \\ &= \frac{3}{11} \times \frac{1}{5} \\ &= \frac{3}{55} \end{aligned}$$

$$\begin{aligned} & \left( \frac{1}{3} \div \frac{2}{3} \right) \times \left( \frac{5}{6} + \frac{7}{9} - \frac{2}{9} - \frac{1}{6} \right) \\ &= \frac{1}{2} \times \left( \frac{5}{6} + \frac{7}{9} - \frac{2}{9} - \frac{1}{6} \right) \\ &= \frac{1}{2} \times \left( \frac{29}{18} - \frac{2}{9} - \frac{1}{6} \right) \\ &= \frac{1}{2} \times \left( \frac{25}{18} - \frac{1}{6} \right) \\ &= \frac{1}{2} \times \frac{11}{9} \\ &= \frac{11}{18} \end{aligned}$$

$$\begin{aligned} & \left( \frac{3}{8} \div \left( \frac{2}{5} - \frac{1}{8} \right) \right) \times \left( \frac{1}{9} + \frac{1}{2} + \frac{1}{6} \right) \\ &= \left( \frac{3}{8} \div \frac{11}{40} \right) \times \left( \frac{1}{9} + \frac{1}{2} + \frac{1}{6} \right) \\ &= \frac{15}{11} \times \left( \frac{1}{9} + \frac{1}{2} + \frac{1}{6} \right) \\ &= \frac{15}{11} \times \left( \frac{11}{18} + \frac{1}{6} \right) \\ &= \frac{15}{11} \times \frac{7}{9} \\ &= \frac{35}{33} \\ &= 1 \frac{2}{33} \end{aligned}$$

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

## Order of Operations with Fractions (C)

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

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

Simplify each expression using the correct order of operations.

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

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

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

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

# Order of Operations with Fractions (C)

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

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

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left( \frac{3}{8} \div \frac{1}{6} \right) \times \left( \frac{1}{2} + \frac{2}{9} - \frac{1}{3} + \frac{7}{8} \right) \\ &= \frac{9}{4} \times \left( \frac{1}{2} + \frac{2}{9} - \frac{1}{3} + \frac{7}{8} \right) \\ &= \frac{9}{4} \times \left( \frac{13}{18} - \frac{1}{3} + \frac{7}{8} \right) \\ &= \frac{9}{4} \times \left( \frac{7}{18} + \frac{7}{8} \right) \\ &= \frac{9}{4} \times \frac{91}{72} \\ &= \frac{91}{32} \\ &= 2\frac{27}{32} \end{aligned}$$

$$\begin{aligned} & \left( \frac{1}{2} + \frac{1}{3} - \frac{1}{5} \right) \div \left( \frac{3}{4} \times \left( \frac{1}{6} \times \frac{2}{3} \right) \right) \\ &= \left( \frac{5}{6} - \frac{1}{5} \right) \div \left( \frac{3}{4} \times \left( \frac{1}{6} \times \frac{2}{3} \right) \right) \\ &= \frac{19}{30} \div \left( \frac{3}{4} \times \left( \frac{1}{6} \times \frac{2}{3} \right) \right) \\ &= \frac{19}{30} \div \left( \frac{3}{4} \times \frac{1}{9} \right) \\ &= \frac{19}{30} \div \frac{1}{12} \\ &= \frac{38}{5} \\ &= 7\frac{3}{5} \end{aligned}$$

$$\begin{aligned} & \left( \frac{3}{5} \div \left( \frac{1}{2} - \frac{4}{9} + \frac{5}{6} \right) \right) \times \left( \frac{8}{9} \times \frac{1}{6} \right) \\ &= \left( \frac{3}{5} \div \left( \frac{1}{18} + \frac{5}{6} \right) \right) \times \left( \frac{8}{9} \times \frac{1}{6} \right) \\ &= \left( \frac{3}{5} \div \frac{8}{9} \right) \times \left( \frac{8}{9} \times \frac{1}{6} \right) \\ &= \frac{27}{40} \times \left( \frac{8}{9} \times \frac{1}{6} \right) \\ &= \frac{27}{40} \times \frac{4}{27} \\ &= \frac{1}{10} \end{aligned}$$

$$\begin{aligned} & \left( \frac{7}{9} - \frac{4}{9} \right) \times \left( \frac{3}{8} + \frac{3}{5} \right) \div \left( \frac{5}{8} - \frac{2}{5} \right) \\ &= \frac{1}{3} \times \left( \frac{3}{8} + \frac{3}{5} \right) \div \left( \frac{5}{8} - \frac{2}{5} \right) \\ &= \frac{1}{3} \times \frac{39}{40} \div \left( \frac{5}{8} - \frac{2}{5} \right) \\ &= \frac{1}{3} \times \frac{39}{40} \div \frac{9}{40} \\ &= \frac{13}{40} \div \frac{9}{40} \\ &= \frac{13}{9} \\ &= 1\frac{4}{9} \end{aligned}$$

## Order of Operations with Fractions (D)

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

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

Simplify each expression using the correct order of operations.

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

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

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

$$\left(\left(\frac{7}{9} - \frac{2}{9}\right) \times \frac{5}{8}\right) \div \left(\frac{4}{9} + \frac{3}{4}\right) \div \frac{1}{3}$$

# Order of Operations with Fractions (D)

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

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

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left( \frac{1}{5} \div \left( \frac{7}{9} - \frac{1}{6} \right) \right) \times \left( \frac{5}{9} + \frac{4}{9} + \frac{5}{6} \right) \\ &= \left( \frac{1}{5} \div \frac{11}{18} \right) \times \left( \frac{5}{9} + \frac{4}{9} + \frac{5}{6} \right) \\ &= \frac{18}{55} \times \left( \frac{5}{9} + \frac{4}{9} + \frac{5}{6} \right) \\ &= \frac{18}{55} \times \left( 1 + \frac{5}{6} \right) \\ &= \frac{18}{55} \times \frac{11}{6} \\ &= \frac{3}{5} \end{aligned}$$

$$\begin{aligned} & \left( \frac{4}{9} + \frac{5}{6} \right) \times \left( \frac{4}{5} - \frac{1}{8} \right) \div \left( \frac{2}{5} + \frac{3}{8} \right) \\ &= \frac{23}{18} \times \left( \frac{4}{5} - \frac{1}{8} \right) \div \left( \frac{2}{5} + \frac{3}{8} \right) \\ &= \frac{23}{18} \times \frac{27}{40} \div \left( \frac{2}{5} + \frac{3}{8} \right) \\ &= \frac{23}{18} \times \frac{27}{40} \div \frac{31}{40} \\ &= \frac{69}{80} \div \frac{31}{40} \\ &= \frac{69}{62} \\ &= 1\frac{7}{62} \end{aligned}$$

$$\begin{aligned} & \frac{2}{5} + \frac{2}{3} - \frac{1}{8} \div \left( \left( \frac{1}{3} \times \frac{1}{2} \right) \div \frac{4}{9} \right) \\ &= \frac{2}{5} + \frac{2}{3} - \frac{1}{8} \div \left( \frac{1}{6} \div \frac{4}{9} \right) \\ &= \frac{2}{5} + \frac{2}{3} - \frac{1}{8} \div \frac{3}{8} \\ &= \frac{2}{5} + \frac{2}{3} - \frac{1}{3} \\ &= \frac{16}{15} - \frac{1}{3} \\ &= \frac{11}{15} \end{aligned}$$

$$\begin{aligned} & \left( \left( \frac{7}{9} - \frac{2}{9} \right) \times \frac{5}{8} \right) \div \left( \frac{4}{9} + \frac{3}{4} \right) \div \frac{1}{3} \\ &= \left( \frac{5}{9} \times \frac{5}{8} \right) \div \left( \frac{4}{9} + \frac{3}{4} \right) \div \frac{1}{3} \\ &= \frac{25}{72} \div \left( \frac{4}{9} + \frac{3}{4} \right) \div \frac{1}{3} \\ &= \frac{25}{72} \div \frac{43}{36} \div \frac{1}{3} \\ &= \frac{25}{86} \div \frac{1}{3} \\ &= \frac{75}{86} \end{aligned}$$



## Order of Operations with Fractions (E)

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

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

Simplify each expression using the correct order of operations.

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

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

$$\left(\frac{4}{9} \div \frac{5}{8}\right) \times \left(\left(\frac{1}{9} + \frac{7}{9} - \frac{5}{6}\right) \div \frac{2}{9}\right)$$

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

# Order of Operations with Fractions (E)

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

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

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left( \frac{3}{4} \times \left( \frac{8}{9} - \frac{7}{8} \right) \right) \div \frac{1}{8} + \frac{5}{8} - \frac{4}{9} \\ &= \left( \frac{3}{4} \times \frac{1}{72} \right) \div \frac{1}{8} + \frac{5}{8} - \frac{4}{9} \\ &= \frac{1}{96} \div \frac{1}{8} + \frac{5}{8} - \frac{4}{9} \\ &= \frac{1}{12} + \frac{5}{8} - \frac{4}{9} \\ &= \frac{17}{24} - \frac{4}{9} \\ &= \frac{19}{72} \end{aligned}$$

$$\begin{aligned} & \frac{8}{9} \div \left( \frac{5}{6} - \frac{1}{2} + \frac{1}{3} \right) \times \left( \frac{3}{8} \div \frac{1}{5} \right) \\ &= \frac{8}{9} \div \left( \frac{1}{3} + \frac{1}{3} \right) \times \left( \frac{3}{8} \div \frac{1}{5} \right) \\ &= \frac{8}{9} \div \frac{2}{3} \times \left( \frac{3}{8} \div \frac{1}{5} \right) \\ &= \frac{8}{9} \div \frac{2}{3} \times \frac{15}{8} \\ &= \frac{4}{3} \times \frac{15}{8} \\ &= \frac{5}{2} \\ &= 2\frac{1}{2} \end{aligned}$$

$$\begin{aligned} & \left( \frac{4}{9} \div \frac{5}{8} \right) \times \left( \left( \frac{1}{9} + \frac{7}{9} - \frac{5}{6} \right) \div \frac{2}{9} \right) \\ &= \frac{32}{45} \times \left( \left( \frac{1}{9} + \frac{7}{9} - \frac{5}{6} \right) \div \frac{2}{9} \right) \\ &= \frac{32}{45} \times \left( \left( \frac{8}{9} - \frac{5}{6} \right) \div \frac{2}{9} \right) \\ &= \frac{32}{45} \times \left( \frac{1}{18} \div \frac{2}{9} \right) \\ &= \frac{32}{45} \times \frac{1}{4} \\ &= \frac{8}{45} \end{aligned}$$

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

## Order of Operations with Fractions (F)

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

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

Simplify each expression using the correct order of operations.

$$\left(\left(\frac{8}{9} \div \frac{5}{9}\right) \times \left(\frac{7}{8} + \frac{1}{3} - \frac{2}{9}\right)\right) \times \frac{3}{5}$$

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

$$\left(\frac{2}{3} + \frac{7}{9} - \frac{3}{8}\right) \div \left(\frac{1}{3} \times \left(\frac{5}{6} + \frac{3}{4}\right)\right)$$

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

# Order of Operations with Fractions (F)

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

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

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left( \left( \frac{8}{9} \div \frac{5}{9} \right) \times \left( \frac{7}{8} + \frac{1}{3} - \frac{2}{9} \right) \right) \times \frac{3}{5} \\ &= \left( \frac{8}{5} \times \left( \frac{7}{8} + \frac{1}{3} - \frac{2}{9} \right) \right) \times \frac{3}{5} \\ &= \left( \frac{8}{5} \times \left( \frac{29}{24} - \frac{2}{9} \right) \right) \times \frac{3}{5} \\ &= \left( \frac{8}{5} \times \frac{71}{72} \right) \times \frac{3}{5} \\ &= \frac{71}{45} \times \frac{3}{5} \\ &= \frac{71}{75} \end{aligned}$$

$$\begin{aligned} & \left( \frac{2}{5} \times \left( \frac{1}{5} + \frac{1}{2} \right) \right) \div \frac{3}{5} - \frac{1}{6} - \frac{1}{8} \\ &= \left( \frac{2}{5} \times \frac{7}{10} \right) \div \frac{3}{5} - \frac{1}{6} - \frac{1}{8} \\ &= \frac{7}{25} \div \frac{3}{5} - \frac{1}{6} - \frac{1}{8} \\ &= \frac{7}{15} - \frac{1}{6} - \frac{1}{8} \\ &= \frac{3}{10} - \frac{1}{8} \\ &= \frac{7}{40} \end{aligned}$$

$$\begin{aligned} & \left( \frac{2}{3} + \frac{7}{9} - \frac{3}{8} \right) \div \left( \frac{1}{3} \times \left( \frac{5}{6} + \frac{3}{4} \right) \right) \\ &= \left( \frac{13}{9} - \frac{3}{8} \right) \div \left( \frac{1}{3} \times \left( \frac{5}{6} + \frac{3}{4} \right) \right) \\ &= \frac{77}{72} \div \left( \frac{1}{3} \times \left( \frac{5}{6} + \frac{3}{4} \right) \right) \\ &= \frac{77}{72} \div \left( \frac{1}{3} \times \frac{19}{12} \right) \\ &= \frac{77}{72} \div \frac{19}{36} \\ &= \frac{77}{38} \\ &= 2\frac{1}{38} \end{aligned}$$

$$\begin{aligned} & \left( \frac{4}{5} - \frac{3}{4} + \frac{1}{3} \right) \div \left( \frac{7}{9} \times \left( \frac{3}{5} \div \frac{2}{3} \right) \right) \\ &= \left( \frac{1}{20} + \frac{1}{3} \right) \div \left( \frac{7}{9} \times \left( \frac{3}{5} \div \frac{2}{3} \right) \right) \\ &= \frac{23}{60} \div \left( \frac{7}{9} \times \left( \frac{3}{5} \div \frac{2}{3} \right) \right) \\ &= \frac{23}{60} \div \left( \frac{7}{9} \times \frac{9}{10} \right) \\ &= \frac{23}{60} \div \frac{7}{10} \\ &= \frac{23}{42} \end{aligned}$$

# Order of Operations with Fractions (G)

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

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

Simplify each expression using the correct order of operations.

$$\left(\frac{2}{3} \times \frac{3}{4}\right) \div \left(\frac{5}{8} - \frac{1}{3} + \frac{7}{9} - \frac{1}{6}\right)$$

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

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

$$\left(\frac{7}{9} \div \frac{1}{5}\right) \times \left(\left(\frac{1}{3} - \frac{2}{9} + \frac{8}{9}\right) \div \frac{2}{3}\right)$$

# Order of Operations with Fractions (G)

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

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

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left( \frac{2}{3} \times \frac{3}{4} \right) \div \left( \frac{5}{8} - \frac{1}{3} + \frac{7}{9} - \frac{1}{6} \right) \\ &= \frac{1}{2} \div \left( \frac{5}{8} - \frac{1}{3} + \frac{7}{9} - \frac{1}{6} \right) \\ &= \frac{1}{2} \div \left( \frac{7}{24} + \frac{7}{9} - \frac{1}{6} \right) \\ &= \frac{1}{2} \div \left( \frac{77}{72} - \frac{1}{6} \right) \\ &= \frac{1}{2} \div \frac{65}{72} \\ &= \frac{36}{65} \end{aligned}$$

$$\begin{aligned} & \frac{5}{6} + \frac{1}{4} - \frac{2}{5} \times \left( \left( \frac{3}{8} \div \frac{3}{4} \right) \div \frac{1}{3} \right) \\ &= \frac{5}{6} + \frac{1}{4} - \frac{2}{5} \times \left( \frac{1}{2} \div \frac{1}{3} \right) \\ &= \frac{5}{6} + \frac{1}{4} - \frac{2}{5} \times \frac{3}{2} \\ &= \frac{5}{6} + \frac{1}{4} - \frac{3}{5} \\ &= \frac{13}{12} - \frac{3}{5} \\ &= \frac{29}{60} \end{aligned}$$

$$\begin{aligned} & \left( \left( \frac{1}{3} + \frac{1}{9} \right) \times \frac{1}{5} \right) \div \left( \frac{7}{8} - \frac{3}{5} \right) \div \frac{5}{9} \\ &= \left( \frac{4}{9} \times \frac{1}{5} \right) \div \left( \frac{7}{8} - \frac{3}{5} \right) \div \frac{5}{9} \\ &= \frac{4}{45} \div \left( \frac{7}{8} - \frac{3}{5} \right) \div \frac{5}{9} \\ &= \frac{4}{45} \div \frac{11}{40} \div \frac{5}{9} \\ &= \frac{32}{99} \div \frac{5}{9} \\ &= \frac{32}{55} \end{aligned}$$

$$\begin{aligned} & \left( \frac{7}{9} \div \frac{1}{5} \right) \times \left( \left( \frac{1}{3} - \frac{2}{9} + \frac{8}{9} \right) \div \frac{2}{3} \right) \\ &= \frac{35}{9} \times \left( \left( \frac{1}{3} - \frac{2}{9} + \frac{8}{9} \right) \div \frac{2}{3} \right) \\ &= \frac{35}{9} \times \left( \left( \frac{1}{9} + \frac{8}{9} \right) \div \frac{2}{3} \right) \\ &= \frac{35}{9} \times \left( 1 \div \frac{2}{3} \right) \\ &= \frac{35}{9} \times \frac{3}{2} \\ &= \frac{35}{6} \\ &= 5\frac{5}{6} \end{aligned}$$

# Order of Operations with Fractions (H)

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

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

Simplify each expression using the correct order of operations.

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

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

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

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

# Order of Operations with Fractions (H)

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

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

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left( \frac{1}{2} \times \frac{1}{6} \right) \div \left( \frac{8}{9} + \frac{2}{9} - \frac{4}{9} - \frac{5}{9} \right) \\ &= \frac{1}{12} \div \left( \frac{8}{9} + \frac{2}{9} - \frac{4}{9} - \frac{5}{9} \right) \\ &= \frac{1}{12} \div \left( \frac{10}{9} - \frac{4}{9} - \frac{5}{9} \right) \\ &= \frac{1}{12} \div \left( \frac{2}{3} - \frac{5}{9} \right) \\ &= \frac{1}{12} \div \frac{1}{9} \\ &= \frac{3}{4} \end{aligned}$$

$$\begin{aligned} & \left( \left( \frac{7}{8} - \frac{1}{4} \right) \times \frac{8}{9} \right) \div \left( \frac{1}{9} + \frac{3}{8} + \frac{3}{4} \right) \\ &= \left( \frac{5}{8} \times \frac{8}{9} \right) \div \left( \frac{1}{9} + \frac{3}{8} + \frac{3}{4} \right) \\ &= \frac{5}{9} \div \left( \frac{1}{9} + \frac{3}{8} + \frac{3}{4} \right) \\ &= \frac{5}{9} \div \left( \frac{35}{72} + \frac{3}{4} \right) \\ &= \frac{5}{9} \div \frac{89}{72} \\ &= \frac{40}{89} \end{aligned}$$

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

$$\begin{aligned} & \left( \frac{1}{6} \times \left( \frac{3}{4} + \frac{2}{3} \right) \right) \div \frac{5}{6} - \frac{2}{9} \div \frac{8}{9} \\ &= \left( \frac{1}{6} \times \frac{17}{12} \right) \div \frac{5}{6} - \frac{2}{9} \div \frac{8}{9} \\ &= \frac{17}{72} \div \frac{5}{6} - \frac{2}{9} \div \frac{8}{9} \\ &= \frac{17}{60} - \frac{2}{9} \div \frac{8}{9} \\ &= \frac{17}{60} - \frac{1}{4} \\ &= \frac{1}{30} \end{aligned}$$



# Order of Operations with Fractions (I)

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

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

Simplify each expression using the correct order of operations.

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

$$\left( \frac{1}{3} \div \frac{1}{5} \right) \times \left( \frac{5}{8} + \frac{7}{8} - \frac{2}{3} \right) \div \frac{8}{9}$$

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

$$\left( \left( \frac{7}{9} + \frac{3}{5} \right) \div \frac{4}{5} \right) \times \left( \frac{8}{9} - \frac{1}{3} - \frac{2}{9} \right)$$

# Order of Operations with Fractions (I)

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

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

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \frac{1}{3} \div \left( \frac{2}{3} - \frac{3}{8} \right) \times \left( \frac{1}{2} + \frac{1}{4} \right) \times \frac{1}{9} \\ &= \frac{1}{3} \div \frac{7}{24} \times \left( \frac{1}{2} + \frac{1}{4} \right) \times \frac{1}{9} \\ &= \frac{1}{3} \div \frac{7}{24} \times \frac{3}{4} \times \frac{1}{9} \\ &= \frac{8}{7} \times \frac{3}{4} \times \frac{1}{9} \\ &= \frac{6}{7} \times \frac{1}{9} \\ &= \frac{2}{21} \end{aligned}$$

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

$$\begin{aligned} & \left( \frac{1}{9} \div \frac{4}{5} \right) \times \left( \frac{1}{2} - \frac{1}{5} + \frac{3}{8} \right) \div \frac{2}{5} \\ &= \frac{5}{36} \times \left( \frac{1}{2} - \frac{1}{5} + \frac{3}{8} \right) \div \frac{2}{5} \\ &= \frac{5}{36} \times \left( \frac{3}{10} + \frac{3}{8} \right) \div \frac{2}{5} \\ &= \frac{5}{36} \times \frac{27}{40} \div \frac{2}{5} \\ &= \frac{3}{32} \div \frac{2}{5} \\ &= \frac{15}{64} \end{aligned}$$

$$\begin{aligned} & \left( \left( \frac{7}{9} + \frac{3}{5} \right) \div \frac{4}{5} \right) \times \left( \frac{8}{9} - \frac{1}{3} - \frac{2}{9} \right) \\ &= \left( \frac{62}{45} \div \frac{4}{5} \right) \times \left( \frac{8}{9} - \frac{1}{3} - \frac{2}{9} \right) \\ &= \frac{31}{18} \times \left( \frac{8}{9} - \frac{1}{3} - \frac{2}{9} \right) \\ &= \frac{31}{18} \times \left( \frac{5}{9} - \frac{2}{9} \right) \\ &= \frac{31}{18} \times \frac{1}{3} \\ &= \frac{31}{54} \end{aligned}$$

# Order of Operations with Fractions (J)

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

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

Simplify each expression using the correct order of operations.

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

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

$$\left(\frac{7}{8} + \frac{1}{4}\right) \div \left(\frac{7}{9} - \frac{5}{8}\right) \times \frac{4}{9} \times \frac{2}{5}$$

$$\left(\frac{2}{9} + \frac{3}{4}\right) \div \frac{7}{9} \times \left(\left(\frac{1}{5} - \frac{1}{8}\right) \times \frac{1}{3}\right)$$

# Order of Operations with Fractions (J)

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

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

Simplify each expression using the correct order of operations.

$$\begin{aligned} & \left(\frac{1}{5} \div \frac{3}{8}\right) \times \left(\left(\frac{5}{6} - \frac{1}{4} + \frac{1}{9}\right) \times \frac{4}{5}\right) \\ &= \frac{8}{15} \times \left(\left(\frac{5}{6} - \frac{1}{4} + \frac{1}{9}\right) \times \frac{4}{5}\right) \\ &= \frac{8}{15} \times \left(\left(\frac{7}{12} + \frac{1}{9}\right) \times \frac{4}{5}\right) \\ &= \frac{8}{15} \times \left(\frac{25}{36} \times \frac{4}{5}\right) \\ &= \frac{8}{15} \times \frac{5}{9} \\ &= \frac{8}{27} \end{aligned}$$

$$\begin{aligned} & \frac{1}{4} \times \left(\frac{3}{8} - \frac{2}{9} + \frac{5}{8}\right) \div \left(\frac{5}{9} \times \frac{1}{9}\right) \\ &= \frac{1}{4} \times \left(\frac{11}{72} + \frac{5}{8}\right) \div \left(\frac{5}{9} \times \frac{1}{9}\right) \\ &= \frac{1}{4} \times \frac{7}{9} \div \left(\frac{5}{9} \times \frac{1}{9}\right) \\ &= \frac{1}{4} \times \frac{7}{9} \div \frac{5}{81} \\ &= \frac{7}{36} \div \frac{5}{81} \\ &= \frac{63}{20} \\ &= 3\frac{3}{20} \end{aligned}$$

$$\begin{aligned} & \left(\frac{7}{8} + \frac{1}{4}\right) \div \left(\frac{7}{9} - \frac{5}{8}\right) \times \frac{4}{9} \times \frac{2}{5} \\ &= \frac{9}{8} \div \left(\frac{7}{9} - \frac{5}{8}\right) \times \frac{4}{9} \times \frac{2}{5} \\ &= \frac{9}{8} \div \frac{11}{72} \times \frac{4}{9} \times \frac{2}{5} \\ &= \frac{81}{11} \times \frac{4}{9} \times \frac{2}{5} \\ &= \frac{36}{11} \times \frac{2}{5} \\ &= \frac{72}{55} \\ &= 1\frac{17}{55} \end{aligned}$$

$$\begin{aligned} & \left(\frac{2}{9} + \frac{3}{4}\right) \div \frac{7}{9} \times \left(\left(\frac{1}{5} - \frac{1}{8}\right) \times \frac{1}{3}\right) \\ &= \frac{35}{36} \div \frac{7}{9} \times \left(\left(\frac{1}{5} - \frac{1}{8}\right) \times \frac{1}{3}\right) \\ &= \frac{35}{36} \div \frac{7}{9} \times \left(\frac{3}{40} \times \frac{1}{3}\right) \\ &= \frac{35}{36} \div \frac{7}{9} \times \frac{1}{40} \\ &= \frac{5}{4} \times \frac{1}{40} \\ &= \frac{1}{32} \end{aligned}$$