Order of Operations with Fractions (A)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (A)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$$\left(\frac{1}{2}\right)^3 \times \left(\frac{1}{3} \div \left(\frac{5}{9} + \frac{8}{9} - \frac{3}{4}\right)\right)$$
$$= \left(\frac{1}{2}\right)^3 \times \left(\frac{1}{3} \div \left(\frac{13}{9} - \frac{3}{4}\right)\right)$$
$$= \left(\frac{1}{2}\right)^3 \times \left(\frac{1}{3} \div \frac{25}{36}\right)$$
$$= \left(\frac{1}{2}\right)^3 \times \frac{12}{25}$$
$$= \frac{1}{8} \times \frac{12}{25}$$
$$= \frac{3}{50}$$

$$\left(\left(\frac{7}{9} + \frac{1}{3}\right) \div \left(\frac{5}{9}\right)^2\right) \times \frac{1}{4} - \frac{1}{5}$$
$$= \left(\frac{10}{9} \div \left(\frac{5}{9}\right)^2\right) \times \frac{1}{4} - \frac{1}{5}$$
$$= \left(\frac{10}{9} \div \frac{25}{81}\right) \times \frac{1}{4} - \frac{1}{5}$$
$$= \frac{18}{5} \times \frac{1}{4} - \frac{1}{5}$$
$$= \frac{9}{10} - \frac{1}{5}$$
$$= \frac{7}{10}$$

$$\frac{5}{8} - \frac{1}{4} + \frac{3}{8} \times \left(\frac{4}{5} \div \left(\frac{2}{5}\right)^2\right)$$
$$= \frac{5}{8} - \frac{1}{4} + \frac{3}{8} \times \left(\frac{4}{5} \div \frac{4}{25}\right)$$
$$= \frac{5}{8} - \frac{1}{4} + \frac{3}{8} \times 5$$
$$= \frac{5}{8} - \frac{1}{4} + \frac{15}{8}$$
$$= \frac{3}{8} + \frac{15}{8}$$
$$= \frac{9}{4}$$
$$= 2\frac{1}{4}$$

$$\frac{7}{8} \times \frac{5}{9} \div \left(\frac{4}{9} - \left(\frac{1}{6}\right)^2 + \frac{2}{3}\right)$$
$$= \frac{7}{8} \times \frac{5}{9} \div \left(\frac{4}{9} - \frac{1}{36} + \frac{2}{3}\right)$$
$$= \frac{7}{8} \times \frac{5}{9} \div \left(\frac{5}{12} + \frac{2}{3}\right)$$
$$= \frac{7}{8} \times \frac{5}{9} \div \frac{13}{12}$$
$$= \frac{35}{72} \div \frac{13}{12}$$
$$= \frac{35}{78}$$

Order of Operations with Fractions (B)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (B)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$$\left(\frac{7}{8} - \frac{1}{2} \div \left(\frac{8}{9} + \frac{1}{9}\right)^3\right) \times \frac{3}{8}$$
$$= \left(\frac{7}{8} - \frac{1}{2} \div 1^3\right) \times \frac{3}{8}$$
$$= \left(\frac{7}{8} - \frac{1}{2} \div 1\right) \times \frac{3}{8}$$
$$= \left(\frac{7}{8} - \frac{1}{2}\right) \times \frac{3}{8}$$
$$= \frac{3}{8} \times \frac{3}{8}$$
$$= \frac{9}{64}$$

$$\left(\frac{3}{8} + \frac{2}{9} - \frac{1}{9}\right) \div \left(\frac{5}{6}\right)^2 \times \frac{1}{2}$$
$$= \left(\frac{43}{72} - \frac{1}{9}\right) \div \left(\frac{5}{6}\right)^2 \times \frac{1}{2}$$
$$= \frac{35}{72} \div \left(\frac{5}{6}\right)^2 \times \frac{1}{2}$$
$$= \frac{35}{72} \div \frac{25}{36} \times \frac{1}{2}$$
$$= \frac{7}{10} \times \frac{1}{2}$$
$$= \frac{7}{20}$$

$$\left(\frac{1}{8} + \frac{5}{6} - \left(\frac{1}{3}\right)^2 \times \frac{3}{8}\right) \div \frac{1}{2}$$
$$= \left(\frac{1}{8} + \frac{5}{6} - \frac{1}{9} \times \frac{3}{8}\right) \div \frac{1}{2}$$
$$= \left(\frac{1}{8} + \frac{5}{6} - \frac{1}{24}\right) \div \frac{1}{2}$$
$$= \left(\frac{23}{24} - \frac{1}{24}\right) \div \frac{1}{2}$$
$$= \frac{11}{12} \div \frac{1}{2}$$
$$= \frac{11}{6}$$
$$= 1\frac{5}{6}$$

$$\left(\frac{1}{5} \div \left(\frac{1}{2}\right)^3\right) \times \frac{3}{4} - \frac{5}{6} + \frac{2}{3}$$
$$= \left(\frac{1}{5} \div \frac{1}{8}\right) \times \frac{3}{4} - \frac{5}{6} + \frac{2}{3}$$
$$= \frac{8}{5} \times \frac{3}{4} - \frac{5}{6} + \frac{2}{3}$$
$$= \frac{6}{5} - \frac{5}{6} + \frac{2}{3}$$
$$= \frac{11}{30} + \frac{2}{3}$$
$$= \frac{31}{30}$$
$$= 1\frac{1}{30}$$

Order of Operations with Fractions (C)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (C)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$$\frac{2}{3} \times \left(\frac{3}{4} \div \frac{1}{3} + \frac{1}{8} - \frac{7}{8}\right)^2$$
$$= \frac{2}{3} \times \left(\frac{9}{4} + \frac{1}{8} - \frac{7}{8}\right)^2$$
$$= \frac{2}{3} \times \left(\frac{19}{8} - \frac{7}{8}\right)^2$$
$$= \frac{2}{3} \times \left(\frac{3}{2}\right)^2$$
$$= \frac{2}{3} \times \frac{9}{4}$$
$$= \frac{3}{2}$$
$$= 1\frac{1}{2}$$

$$\left(\frac{3}{4} - \frac{7}{8} \times \frac{4}{5}\right) \div \left(\frac{1}{2}\right)^2 + \frac{8}{9}$$
$$= \left(\frac{3}{4} - \frac{7}{10}\right) \div \left(\frac{1}{2}\right)^2 + \frac{8}{9}$$
$$= \frac{1}{20} \div \left(\frac{1}{2}\right)^2 + \frac{8}{9}$$
$$= \frac{1}{20} \div \frac{1}{4} + \frac{8}{9}$$
$$= \frac{1}{5} + \frac{8}{9}$$
$$= \frac{49}{45}$$
$$= 1\frac{4}{45}$$

$$\left(\frac{1}{3} + \frac{2}{5} \times \frac{4}{5}\right) \div \frac{1}{2} - \left(\frac{3}{5}\right)^2$$
$$= \left(\frac{1}{3} + \frac{8}{25}\right) \div \frac{1}{2} - \left(\frac{3}{5}\right)^2$$
$$= \frac{49}{75} \div \frac{1}{2} - \left(\frac{3}{5}\right)^2$$
$$= \frac{49}{75} \div \frac{1}{2} - \frac{9}{25}$$
$$= \frac{98}{75} - \frac{9}{25}$$
$$= \frac{71}{75}$$

$$\frac{2}{5} \div \left(\frac{2}{3}\right)^2 \times \left(\frac{7}{9} + \frac{1}{9} - \frac{3}{4}\right)$$
$$= \frac{2}{5} \div \left(\frac{2}{3}\right)^2 \times \left(\frac{8}{9} - \frac{3}{4}\right)$$
$$= \frac{2}{5} \div \left(\frac{2}{3}\right)^2 \times \frac{5}{36}$$
$$= \frac{2}{5} \div \frac{4}{9} \times \frac{5}{36}$$
$$= \frac{9}{10} \times \frac{5}{36}$$
$$= \frac{1}{8}$$

Order of Operations with Fractions (D)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (D)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$$\left(\frac{5}{6}\times\frac{7}{9}+\frac{5}{9}-\left(\frac{2}{3}\right)^2\right)\div\frac{1}{4}$$
$$=\left(\frac{5}{6}\times\frac{7}{9}+\frac{5}{9}-\frac{4}{9}\right)\div\frac{1}{4}$$
$$=\left(\frac{35}{54}+\frac{5}{9}-\frac{4}{9}\right)\div\frac{1}{4}$$
$$=\left(\frac{65}{54}-\frac{4}{9}\right)\div\frac{1}{4}$$
$$=\frac{41}{54}\div\frac{1}{4}$$
$$=\frac{82}{27}$$
$$=3\frac{1}{27}$$

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

$$\left(\frac{3}{4}\right)^2\times\left(\frac{7}{9}-\frac{4}{9}\right)\div\frac{5}{8}+\frac{2}{9}$$
$$=\left(\frac{3}{4}\right)^2\times\frac{1}{3}\div\frac{5}{8}+\frac{2}{9}$$
$$=\frac{9}{16}\times\frac{1}{3}\div\frac{5}{8}+\frac{2}{9}$$
$$=\frac{3}{16}\div\frac{5}{8}+\frac{2}{9}$$
$$=\frac{3}{10}+\frac{2}{9}$$
$$=\frac{47}{90}$$

$$\left(\frac{1}{9}+\frac{2}{5}\right)\div\left(\frac{8}{9}-\left(\frac{1}{2}\right)^2\right)\times\frac{5}{8}$$
$$=\frac{23}{45}\div\left(\frac{8}{9}-\left(\frac{1}{2}\right)^2\right)\times\frac{5}{8}$$
$$=\frac{23}{45}\div\left(\frac{8}{9}-\frac{1}{4}\right)\times\frac{5}{8}$$
$$=\frac{23}{45}\div\frac{23}{36}\times\frac{5}{8}$$
$$=\frac{4}{5}\times\frac{5}{8}$$
$$=\frac{1}{2}$$

Order of Operations with Fractions (E)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (E)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$$\frac{4}{5}\times\left(\frac{1}{8}+\frac{1}{4}-\frac{1}{6}\div\underline{\left(\frac{2}{3}\right)^2}\right)$$
$$=\frac{4}{5}\times\left(\frac{1}{8}+\frac{1}{4}-\underline{\frac{1}{6}\div\frac{4}{9}}\right)$$
$$=\frac{4}{5}\times\left(\underline{\frac{1}{8}+\frac{1}{4}}-\frac{3}{8}\right)$$
$$=\frac{4}{5}\times\left(\underline{\frac{3}{8}-\frac{3}{8}}\right)$$
$$=\underline{\frac{4}{5}\times 0}$$
$$=0$$

$$\left(\frac{7}{8}\div\underline{\left(\frac{1}{2}\right)^3}+\frac{1}{6}\right)\times\frac{3}{4}-\frac{1}{8}$$
$$=\left(\underline{\frac{7}{8}\div\frac{1}{8}}+\frac{1}{6}\right)\times\frac{3}{4}-\frac{1}{8}$$
$$=\left(\underline{7+\frac{1}{6}}\right)\times\frac{3}{4}-\frac{1}{8}$$
$$=\underline{\frac{43}{6}\times\frac{3}{4}}-\frac{1}{8}$$
$$=\underline{\frac{43}{8}-\frac{1}{8}}$$
$$=\frac{21}{4}$$
$$=5\frac{1}{4}$$

$$\left(\frac{1}{3}-\underline{\frac{1}{6}\times\frac{2}{5}}\right)\div\left(\frac{4}{9}+\left(\frac{2}{3}\right)^3\right)$$
$$=\left(\underline{\frac{1}{3}-\frac{1}{15}}\right)\div\left(\frac{4}{9}+\left(\frac{2}{3}\right)^3\right)$$
$$=\frac{4}{15}\div\left(\frac{4}{9}+\underline{\left(\frac{2}{3}\right)^3}\right)$$
$$=\frac{4}{15}\div\left(\underline{\frac{4}{9}+\frac{8}{27}}\right)$$
$$=\underline{\frac{4}{15}\div\frac{20}{27}}$$
$$=\frac{9}{25}$$

$$\left(\frac{4}{5}\times\underline{\left(\frac{7}{8}\right)^2}\right)\div\left(\frac{3}{8}+\frac{1}{4}-\frac{1}{2}\right)$$
$$=\left(\underline{\frac{4}{5}\times\frac{49}{64}}\right)\div\left(\frac{3}{8}+\frac{1}{4}-\frac{1}{2}\right)$$
$$=\frac{49}{80}\div\left(\underline{\frac{3}{8}+\frac{1}{4}}-\frac{1}{2}\right)$$
$$=\frac{49}{80}\div\left(\underline{\frac{5}{8}-\frac{1}{2}}\right)$$
$$=\underline{\frac{49}{80}\div\frac{1}{8}}$$
$$=\frac{49}{10}$$
$$=4\frac{9}{10}$$

Order of Operations with Fractions (F)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (F)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$$\left(\frac{4}{9}\times\left(\frac{1}{2}\right)^3\right)\div\left(\frac{1}{3}-\frac{1}{6}+\frac{3}{5}\right)$$
$$=\left(\frac{4}{9}\times\frac{1}{8}\right)\div\left(\frac{1}{3}-\frac{1}{6}+\frac{3}{5}\right)$$
$$=\frac{1}{18}\div\left(\frac{1}{3}-\frac{1}{6}+\frac{3}{5}\right)$$
$$=\frac{1}{18}\div\left(\frac{1}{6}+\frac{3}{5}\right)$$
$$=\frac{1}{18}\div\frac{23}{30}$$
$$=\frac{5}{69}$$

$$\left(\frac{5}{9}-\frac{1}{9}\div\frac{5}{6}\right)\times\left(\frac{3}{8}+\frac{5}{8}\right)^3$$
$$=\left(\frac{5}{9}-\frac{2}{15}\right)\times\left(\frac{3}{8}+\frac{5}{8}\right)^3$$
$$=\frac{19}{45}\times\left(\frac{3}{8}+\frac{5}{8}\right)^3$$
$$=\frac{19}{45}\times 1^3$$
$$=\frac{19}{45}\times 1$$
$$=\frac{19}{45}$$

$$\left(\frac{7}{8}-\frac{5}{6}\right)\div\left(\frac{1}{2}+\frac{4}{9}\times\left(\frac{3}{8}\right)^2\right)$$
$$=\frac{1}{24}\div\left(\frac{1}{2}+\frac{4}{9}\times\left(\frac{3}{8}\right)^2\right)$$
$$=\frac{1}{24}\div\left(\frac{1}{2}+\frac{4}{9}\times\frac{9}{64}\right)$$
$$=\frac{1}{24}\div\left(\frac{1}{2}+\frac{1}{16}\right)$$
$$=\frac{1}{24}\div\frac{9}{16}$$
$$=\frac{2}{27}$$

$$\left(\frac{1}{2}+\frac{7}{9}-\frac{1}{3}\right)\div\frac{2}{9}\times\left(\frac{2}{5}\right)^2$$
$$=\left(\frac{23}{18}-\frac{1}{3}\right)\div\frac{2}{9}\times\left(\frac{2}{5}\right)^2$$
$$=\frac{17}{18}\div\frac{2}{9}\times\left(\frac{2}{5}\right)^2$$
$$=\frac{17}{18}\div\frac{2}{9}\times\frac{4}{25}$$
$$=\frac{17}{4}\times\frac{4}{25}$$
$$=\frac{17}{25}$$

Order of Operations with Fractions (G)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (G)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$$\frac{1}{5} \times \frac{5}{6} \div \left(\frac{1}{6} + \underline{\left(\frac{3}{4}\right)^2} - \frac{1}{2}\right)$$
$$= \frac{1}{5} \times \frac{5}{6} \div \left(\underline{\frac{1}{6} + \frac{9}{16}} - \frac{1}{2}\right)$$
$$= \frac{1}{5} \times \frac{5}{6} \div \left(\underline{\frac{35}{48} - \frac{1}{2}}\right)$$
$$= \underline{\frac{1}{5} \times \frac{5}{6}} \div \frac{11}{48}$$
$$= \underline{\frac{1}{6} \div \frac{11}{48}}$$
$$= \frac{8}{11}$$

$$\left(\underline{\left(\frac{1}{3}\right)^2} \times \frac{8}{9}\right) \div \left(\frac{1}{6} + \frac{3}{4} - \frac{7}{8}\right)$$
$$= \left(\underline{\frac{1}{9} \times \frac{8}{9}}\right) \div \left(\frac{1}{6} + \frac{3}{4} - \frac{7}{8}\right)$$
$$= \frac{8}{81} \div \left(\underline{\frac{1}{6} + \frac{3}{4}} - \frac{7}{8}\right)$$
$$= \frac{8}{81} \div \left(\underline{\frac{11}{12} - \frac{7}{8}}\right)$$
$$= \underline{\frac{8}{81} \div \frac{1}{24}}$$
$$= \frac{64}{27}$$
$$= 2\frac{10}{27}$$

$$\left(\underline{\left(\frac{1}{6}\right)^2} + \frac{2}{9}\right) \div \left(\frac{7}{9} \times \frac{7}{8} - \frac{1}{2}\right)$$
$$= \left(\underline{\frac{1}{36} + \frac{2}{9}}\right) \div \left(\frac{7}{9} \times \frac{7}{8} - \frac{1}{2}\right)$$
$$= \frac{1}{4} \div \left(\underline{\frac{7}{9} \times \frac{7}{8}} - \frac{1}{2}\right)$$
$$= \frac{1}{4} \div \left(\underline{\frac{49}{72} - \frac{1}{2}}\right)$$
$$= \underline{\frac{1}{4} \div \frac{13}{72}}$$
$$= \frac{18}{13}$$
$$= 1\frac{5}{13}$$

$$\left(\frac{4}{5} \div \underline{\left(\frac{1}{2}\right)^2}\right) \times \left(\frac{1}{4} + \frac{1}{9} - \frac{1}{3}\right)$$
$$= \left(\underline{\frac{4}{5} \div \frac{1}{4}}\right) \times \left(\frac{1}{4} + \frac{1}{9} - \frac{1}{3}\right)$$
$$= \frac{16}{5} \times \left(\underline{\frac{1}{4} + \frac{1}{9}} - \frac{1}{3}\right)$$
$$= \frac{16}{5} \times \left(\underline{\frac{13}{36} - \frac{1}{3}}\right)$$
$$= \underline{\frac{16}{5} \times \frac{1}{36}}$$
$$= \frac{4}{45}$$

Order of Operations with Fractions (H)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (H)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$$\left(\frac{1}{9}\times\frac{3}{8}\right)\div\left(\frac{7}{8}-\frac{7}{9}+\left(\frac{5}{6}\right)^2\right)$$
$$=\frac{1}{24}\div\left(\frac{7}{8}-\frac{7}{9}+\left(\frac{5}{6}\right)^2\right)$$
$$=\frac{1}{24}\div\left(\frac{7}{8}-\frac{7}{9}+\frac{25}{36}\right)$$
$$=\frac{1}{24}\div\left(\frac{7}{72}+\frac{25}{36}\right)$$
$$=\frac{1}{24}\div\frac{19}{24}$$
$$=\frac{1}{19}$$

$$\frac{2}{5}\div\left(\frac{5}{8}\times\frac{2}{9}+\frac{3}{4}-\left(\frac{2}{3}\right)^3\right)$$
$$=\frac{2}{5}\div\left(\frac{5}{8}\times\frac{2}{9}+\frac{3}{4}-\frac{8}{27}\right)$$
$$=\frac{2}{5}\div\left(\frac{5}{36}+\frac{3}{4}-\frac{8}{27}\right)$$
$$=\frac{2}{5}\div\left(\frac{8}{9}-\frac{8}{27}\right)$$
$$=\frac{2}{5}\div\frac{16}{27}$$
$$=\frac{27}{40}$$

$$\left(\frac{5}{8}\times\frac{4}{9}\right)\div\left(\frac{1}{6}+\left(\frac{1}{4}\right)^2-\frac{1}{8}\right)$$
$$=\frac{5}{18}\div\left(\frac{1}{6}+\left(\frac{1}{4}\right)^2-\frac{1}{8}\right)$$
$$=\frac{5}{18}\div\left(\frac{1}{6}+\frac{1}{16}-\frac{1}{8}\right)$$
$$=\frac{5}{18}\div\left(\frac{11}{48}-\frac{1}{8}\right)$$
$$=\frac{5}{18}\div\frac{5}{48}$$
$$=\frac{8}{3}$$
$$=2\frac{2}{3}$$

$$\left(\frac{1}{9}\times\frac{4}{5}\right)\div\left(\frac{4}{9}\right)^2+\frac{1}{5}-\frac{1}{2}$$
$$=\frac{4}{45}\div\left(\frac{4}{9}\right)^2+\frac{1}{5}-\frac{1}{2}$$
$$=\frac{4}{45}\div\frac{16}{81}+\frac{1}{5}-\frac{1}{2}$$
$$=\frac{9}{20}+\frac{1}{5}-\frac{1}{2}$$
$$=\frac{13}{20}-\frac{1}{2}$$
$$=\frac{3}{20}$$

Order of Operations with Fractions (I)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (I)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$$\left(\frac{3}{8} \div \frac{1}{2}\right) \times \left(\frac{1}{3} + \frac{4}{9} - \frac{7}{9}\right)^2$$
$$= \frac{3}{4} \times \left(\frac{1}{3} + \frac{4}{9} - \frac{7}{9}\right)^2$$
$$= \frac{3}{4} \times \left(\frac{7}{9} - \frac{7}{9}\right)^2$$
$$= \frac{3}{4} \times 0^2$$
$$= \frac{3}{4} \times 0$$
$$= 0$$

$$\left(\left(\frac{1}{6}\right)^2 + \frac{3}{4} - \frac{1}{2}\right) \div \frac{5}{6} \times \frac{1}{9}$$
$$= \left(\frac{1}{36} + \frac{3}{4} - \frac{1}{2}\right) \div \frac{5}{6} \times \frac{1}{9}$$
$$= \left(\frac{7}{9} - \frac{1}{2}\right) \div \frac{5}{6} \times \frac{1}{9}$$
$$= \frac{5}{18} \div \frac{5}{6} \times \frac{1}{9}$$
$$= \frac{1}{3} \times \frac{1}{9}$$
$$= \frac{1}{27}$$

$$\frac{1}{9} \times \left(\frac{1}{5} \div \left(\frac{4}{5}\right)^2 + \frac{3}{5} - \frac{1}{8}\right)$$
$$= \frac{1}{9} \times \left(\frac{1}{5} \div \frac{16}{25} + \frac{3}{5} - \frac{1}{8}\right)$$
$$= \frac{1}{9} \times \left(\frac{5}{16} + \frac{3}{5} - \frac{1}{8}\right)$$
$$= \frac{1}{9} \times \left(\frac{73}{80} - \frac{1}{8}\right)$$
$$= \frac{1}{9} \times \frac{63}{80}$$
$$= \frac{7}{80}$$

$$\left(\frac{4}{5} - \frac{5}{9}\right) \div \left(\frac{1}{2}\right)^3 \times \frac{5}{8} + \frac{3}{5}$$
$$= \frac{11}{45} \div \left(\frac{1}{2}\right)^3 \times \frac{5}{8} + \frac{3}{5}$$
$$= \frac{11}{45} \div \frac{1}{8} \times \frac{5}{8} + \frac{3}{5}$$
$$= \frac{88}{45} \times \frac{5}{8} + \frac{3}{5}$$
$$= \frac{11}{9} + \frac{3}{5}$$
$$= \frac{82}{45}$$
$$= 1\frac{37}{45}$$

Order of Operations with Fractions (J)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

Order of Operations with Fractions (J)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

$$\left(\frac{5}{9}\right)^2 \div \left(\left(\frac{7}{9} - \frac{1}{2} + \frac{1}{6}\right) \times \frac{1}{3}\right)$$
$$= \left(\frac{5}{9}\right)^2 \div \left(\left(\frac{5}{18} + \frac{1}{6}\right) \times \frac{1}{3}\right)$$
$$= \left(\frac{5}{9}\right)^2 \div \left(\frac{4}{9} \times \frac{1}{3}\right)$$
$$= \left(\frac{5}{9}\right)^2 \div \frac{4}{27}$$
$$= \frac{25}{81} \div \frac{4}{27}$$
$$= \frac{25}{12}$$
$$= 2\frac{1}{12}$$

$$\left(\left(\frac{1}{3}\right)^2 - \frac{1}{9}\right) \times \left(\frac{4}{9} \div \frac{5}{8} + \frac{2}{5}\right)$$
$$= \left(\frac{1}{9} - \frac{1}{9}\right) \times \left(\frac{4}{9} \div \frac{5}{8} + \frac{2}{5}\right)$$
$$= 0 \times \left(\frac{4}{9} \div \frac{5}{8} + \frac{2}{5}\right)$$
$$= 0 \times \left(\frac{32}{45} + \frac{2}{5}\right)$$
$$= 0 \times \frac{10}{9}$$
$$= 0$$

$$\frac{1}{5} \times \left(\left(\frac{2}{3}\right)^2 - \frac{4}{9} + \frac{1}{6}\right) \div \frac{1}{4}$$
$$= \frac{1}{5} \times \left(\frac{4}{9} - \frac{4}{9} + \frac{1}{6}\right) \div \frac{1}{4}$$
$$= \frac{1}{5} \times \left(0 + \frac{1}{6}\right) \div \frac{1}{4}$$
$$= \frac{1}{5} \times \frac{1}{6} \div \frac{1}{4}$$
$$= \frac{1}{30} \div \frac{1}{4}$$
$$= \frac{2}{15}$$

$$\frac{2}{9} \div \left(\left(\frac{2}{3}\right)^2 \times \frac{3}{4} + \frac{8}{9} - \frac{1}{3}\right)$$
$$= \frac{2}{9} \div \left(\frac{4}{9} \times \frac{3}{4} + \frac{8}{9} - \frac{1}{3}\right)$$
$$= \frac{2}{9} \div \left(\frac{1}{3} + \frac{8}{9} - \frac{1}{3}\right)$$
$$= \frac{2}{9} \div \left(\frac{11}{9} - \frac{1}{3}\right)$$
$$= \frac{2}{9} \div \frac{8}{9}$$
$$= \frac{1}{4}$$