Order of Operations with Fractions (A)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (A)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

$$=\left(\left(-\frac{1}{20}\right)\times\frac{5}{9}\right)\div\left(-\frac{2}{3}\right)-\left(-\frac{1}{6}\right)^2$$

$$=\left(-\frac{1}{36}\right)\div\left(-\frac{2}{3}\right)-\left(-\frac{1}{6}\right)^2$$

$$=\left(-\frac{1}{36}\right)\div\left(-\frac{2}{3}\right)-\frac{1}{36}$$

$$=\frac{1}{24}-\frac{1}{36}$$

$$=\frac{1}{72}$$

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

$$=\left(-\frac{7}{8}\right)\div\left(\left(-\frac{5}{8}\right)+\frac{1}{64}-\left(-\frac{1}{6}\right)\times\left(-\frac{3}{4}\right)\right)$$

$$=\left(-\frac{7}{8}\right)\div\left(\left(-\frac{5}{8}\right)+\frac{1}{64}-\frac{1}{8}\right)$$

$$=\left(-\frac{7}{8}\right)\div\left(\left(-\frac{39}{64}\right)-\frac{1}{8}\right)$$

$$=\left(-\frac{7}{8}\right)\div\left(-\frac{47}{64}\right)$$

$$=\frac{56}{47}$$

$$=1\frac{9}{47}$$

Order of Operations with Fractions (B)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (B)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

$= \left(-\frac{3}{14}\right) \times \frac{1}{4}$

$= -\frac{3}{56}$

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

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

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

$= \left(-\frac{1}{5}\right)^2 \times (-1)$

$= \frac{1}{25} \times (-1)$

$= -\frac{1}{25}$

Order of Operations with Fractions (C)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (C)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

$= \left(-\frac{5}{6}\right) - \frac{4}{9} \times \left(0 \div \frac{2}{5}\right)$

$= \left(-\frac{5}{6}\right) - \frac{4}{9} \times 0$

$= \left(-\frac{5}{6}\right) - 0$

$= -\frac{5}{6}$

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

$= \left(\frac{1}{6}\right)^2 - \frac{5}{6} \times \left(\left(-\frac{2}{3}\right) \div \left(-\frac{5}{18}\right)\right)$

$= \left(\frac{1}{6}\right)^2 - \frac{5}{6} \times \frac{12}{5}$

$= \frac{1}{36} - \frac{5}{6} \times \frac{12}{5}$

$= \frac{1}{36} - 2$

$= -\frac{71}{36}$

$= -1\frac{35}{36}$

Order of Operations with Fractions (D)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (D)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

$$= \frac{2}{9} \times \left(-\frac{3}{2} \right)^2$$

$$= \frac{2}{9} \times \frac{9}{4}$$

$$= \frac{1}{2}$$

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

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

$$= \left(-\frac{19}{40} \right) \times \left(-\frac{4}{9} \right) \div \left(\left(-\frac{2}{5} \right) + \frac{7}{8} \right)$$

$$= \left(-\frac{19}{40} \right) \times \left(-\frac{4}{9} \right) \div \frac{19}{40}$$

$$= \frac{19}{90} \div \frac{19}{40}$$

$$= \frac{4}{9}$$

Order of Operations with Fractions (E)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (E)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

$$=\left(-\frac{1}{18}\right)\div\frac{4}{5}-\frac{3}{4}+\left(-\frac{4}{9}\right)$$

$$=\left(-\frac{5}{72}\right)-\frac{3}{4}+\left(-\frac{4}{9}\right)$$

$$=\left(-\frac{59}{72}\right)+\left(-\frac{4}{9}\right)$$

$$=-\frac{91}{72}$$

$$=-1\frac{19}{72}$$

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

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

$$=\frac{5}{18}\div\left(\frac{1}{36}-\left(-\frac{8}{9}\right)+\left(-\frac{4}{9}\right)\right)$$

$$=\frac{5}{18}\div\left(\frac{11}{12}+\left(-\frac{4}{9}\right)\right)$$

$$=\frac{5}{18}\div\frac{17}{36}$$

$$=\frac{10}{17}$$

Order of Operations with Fractions (F)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (F)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

$= \left(-\frac{2}{3}\right) \div \left(-\frac{7}{9}\right)^2 \times \left(-\frac{11}{18}\right)$

$= \left(-\frac{2}{3}\right) \div \frac{49}{81} \times \left(-\frac{11}{18}\right)$

$= \left(-\frac{54}{49}\right) \times \left(-\frac{11}{18}\right)$

$= \frac{33}{49}$

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

$= \left(\frac{1}{4} - \left(-\frac{5}{6}\right) + \frac{25}{36} \div \frac{1}{2}\right) \times \left(-\frac{4}{9}\right)$

$= \left(\frac{1}{4} - \left(-\frac{5}{6}\right) + \frac{25}{18}\right) \times \left(-\frac{4}{9}\right)$

$= \left(\frac{13}{12} + \frac{25}{18}\right) \times \left(-\frac{4}{9}\right)$

$= \frac{89}{36} \times \left(-\frac{4}{9}\right)$

$= -\frac{89}{81}$

$= -1\frac{8}{81}$

Order of Operations with Fractions (G)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (G)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

$=\left(\frac{22}{45}+\left(-\frac{2}{5}\right)\right)\times\left(\left(-\frac{3}{4}\right)^2\div\left(-\frac{1}{6}\right)\right)$

$=\frac{4}{45}\times\left(\left(-\frac{3}{4}\right)^2\div\left(-\frac{1}{6}\right)\right)$

$=\frac{4}{45}\times\left(\frac{9}{16}\div\left(-\frac{1}{6}\right)\right)$

$=\frac{4}{45}\times\left(-\frac{27}{8}\right)$

$=-\frac{3}{10}$

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

$=\left(\frac{5}{12}\times\frac{3}{4}\right)\div\left(\frac{5}{9}\right)^2-\frac{1}{5}$

$=\frac{5}{16}\div\left(\frac{5}{9}\right)^2-\frac{1}{5}$

$=\frac{5}{16}\div\frac{25}{81}-\frac{1}{5}$

$=\frac{81}{80}-\frac{1}{5}$

$=\frac{13}{16}$

Order of Operations with Fractions (H)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (H)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

$= \frac{1}{8} - \frac{4}{5} \times 0$

$= \frac{1}{8} - 0$

$= \frac{1}{8}$

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

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

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

$= \left(-\frac{4}{9} \right) \times \frac{3}{8} - \frac{4}{9}$

$= \left(-\frac{1}{6} \right) - \frac{4}{9}$

$= -\frac{11}{18}$

Order of Operations with Fractions (I)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (I)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

$= \left(\frac{1}{6} \div \frac{9}{25} + \left(-\frac{5}{6}\right) - \frac{8}{9}\right) \times \left(-\frac{1}{2}\right)$

$= \left(\frac{25}{54} + \left(-\frac{5}{6}\right) - \frac{8}{9}\right) \times \left(-\frac{1}{2}\right)$

$= \left(\left(-\frac{10}{27}\right) - \frac{8}{9}\right) \times \left(-\frac{1}{2}\right)$

$= \left(-\frac{34}{27}\right) \times \left(-\frac{1}{2}\right)$

$= \frac{17}{27}$

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

$= \left(-\frac{4}{9}\right) \div \left(\left(-\frac{1}{3}\right) + \frac{4}{81}\right) \times \left(-\frac{5}{8}\right) - \left(-\frac{1}{6}\right)$

$= \left(-\frac{4}{9}\right) \div \left(-\frac{23}{81}\right) \times \left(-\frac{5}{8}\right) - \left(-\frac{1}{6}\right)$

$= \frac{36}{23} \times \left(-\frac{5}{8}\right) - \left(-\frac{1}{6}\right)$

$= \left(-\frac{45}{46}\right) - \left(-\frac{1}{6}\right)$

$= -\frac{56}{69}$

Order of Operations with Fractions (J)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

Order of Operations with Fractions (J)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

$= (-2) \times \left(-\frac{1}{2}\right)^3$

$= (-2) \times \left(-\frac{1}{8}\right)$

$= \frac{1}{4}$

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

$= \left(-\frac{7}{15}\right) \div \left(\frac{1}{4} + \left(-\frac{1}{5}\right)^2 \times \left(-\frac{5}{8}\right)\right)$

$= \left(-\frac{7}{15}\right) \div \left(\frac{1}{4} + \frac{1}{25} \times \left(-\frac{5}{8}\right)\right)$

$= \left(-\frac{7}{15}\right) \div \left(\frac{1}{4} + \left(-\frac{1}{40}\right)\right)$

$= \left(-\frac{7}{15}\right) \div \frac{9}{40}$

$= -\frac{56}{27}$

$= -2\frac{2}{27}$