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.

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

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

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

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

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

$$=\frac{1}{4}$$

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

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

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

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

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

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

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