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.

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

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

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

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

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

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

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

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

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

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

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

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

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