Order of Operations with Fractions (D)

Name: _____ Date: _____

Simplify each expression using the correct order of operations.

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

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

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

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

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Simplify each expression using the correct order of operations.

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

$= \frac{2}{9} \times \left(\frac{25}{36} \div \frac{1}{8} - \frac{2}{3} \right)$

$= \frac{2}{9} \times \left(\frac{50}{9} - \frac{2}{3} \right)$

$= \frac{2}{9} \times \frac{44}{9}$

$= \frac{88}{81}$

$= 1\frac{7}{81}$

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

$= \frac{2}{5} \times \left(\frac{13}{18} + \frac{7}{9} \right)^2$

$= \frac{2}{5} \times \left(\frac{3}{2} \right)^2$

$= \frac{2}{5} \times \frac{9}{4}$

$= \frac{9}{10}$

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

$= \frac{1}{2} \times \left(\frac{8}{9} - \frac{2}{9} + \frac{1}{16} \right)$

$= \frac{1}{2} \times \left(\frac{2}{3} + \frac{1}{16} \right)$

$= \frac{1}{2} \times \frac{35}{48}$

$= \frac{35}{96}$

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

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

$= \frac{1}{9} \div \frac{1}{6} - \frac{1}{81}$

$= \frac{2}{3} - \frac{1}{81}$

$= \frac{53}{81}$