Order of Operations with Fractions (A)

Name:

Date:

Simplify each expression using the correct order of operations.

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

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

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

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

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

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

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$$\frac{\left(\frac{4}{9}\right)^2 \div \left(-\frac{4}{5}\right) - \frac{2}{3}}{= \frac{16}{81} \div \left(-\frac{4}{5}\right) - \frac{2}{3}}$$
$$= \frac{\left(-\frac{20}{81}\right) - \frac{2}{3}}{= -\frac{74}{81}}$$

$$\frac{\left(\frac{3}{4}\right)^3 \times \frac{5}{9} - \frac{7}{8}}{= \frac{27}{64} \times \frac{5}{9} - \frac{7}{8}}$$
$$= \frac{15}{64} - \frac{7}{8}$$
$$= -\frac{41}{64}$$

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

$$= \left(-\frac{7}{8}\right) \times \left(\frac{4}{5} - \frac{4}{9}\right)$$

$$= \left(-\frac{7}{8}\right) \times \frac{16}{45}$$

$$= -\frac{14}{45}$$

$$\frac{\left(\frac{2}{3}\right)^2 \times \left(-\frac{7}{8}\right) + \left(-\frac{2}{5}\right)}{= \frac{4}{9} \times \left(-\frac{7}{8}\right) + \left(-\frac{2}{5}\right)}$$
$$= \frac{\left(-\frac{7}{18}\right) + \left(-\frac{2}{5}\right)}{= -\frac{71}{90}}$$

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

$$= \left(-\frac{7}{6}\right)^2 \div \left(-\frac{5}{9}\right)$$

$$= \frac{49}{36} \div \left(-\frac{5}{9}\right)$$

$$= -\frac{49}{20}$$

$$= -2\frac{9}{20}$$

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

$$= \left(-\frac{8}{9}\right) + \frac{1}{9} \div \left(-\frac{1}{64}\right)$$

$$= \left(-\frac{8}{9}\right) + \left(-\frac{64}{9}\right)$$

$$= -8$$