Date:_____

6.6 Notes and Questions: Applying Fractional Operations

Order of Operations:

The order of operations for FRACTIONS is the same as for WHOLE NUMBERS and DECIMALS.

B RACKETS
E XPONENTS
D IVISION } IN ORDER, LEFT TO RIGHT
M ULTIPLICATION }
A DDITION } IN ORDER, LEFT TO RIGHT
S UBTRACTION }

Calculate:

$\frac{1}{3} \times (9-2) - \frac{5}{6}$

$= \frac{1}{3} \times (7) - \frac{5}{6}$

$= \frac{7}{3} - \frac{5}{6}$

$= \frac{14}{6} - \frac{5}{6}$

$= \frac{9}{6}$

$= \frac{3}{2}$

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

$2\frac{1}{4} \times \left(1\frac{3}{4} + 1\frac{1}{4}\right)$

$= 2\frac{1}{4} \times \left[(1+1) + \left(\frac{3}{4} + \frac{1}{4}\right)\right]$

$= \frac{9}{4} \times \left[2 + \frac{4}{4}\right]$

$= \frac{9}{4} \times [2 + 1]$

$= \frac{9}{4} \times 3$

$= \frac{27}{4}$

$= \boxed{6\frac{3}{4}}$

$$\frac{4}{5}+\frac{2}{3}\times\frac{3}{4}=$$

$$=\frac{4}{5}+\frac{1}{2}$$

$$=\frac{8}{10}+\frac{5}{10}$$

$$=\frac{13}{10}$$

$$=\boxed{1\frac{3}{10}}$$

$$\left(\frac{4}{5}-\frac{1}{2}\right)\div\frac{9}{20}=$$

$$=\left(\frac{8}{10}-\frac{5}{10}\right)\div\frac{9}{20}$$

$$=\frac{3}{10}\div\frac{9}{20}$$

$$=\frac{3}{1}\times\frac{20}{9}$$

$$=\boxed{\frac{2}{3}}$$

$$\frac{2}{7}\left(\frac{1}{3}+\frac{3}{4}\right)=$$

$$=\frac{2}{7}\left(\frac{4}{12}+\frac{9}{12}\right)$$

$$=\frac{2}{7}\left(\frac{13}{12}\right)$$

$$=\boxed{\frac{13}{42}}$$

$$\frac{4}{5}\times1\frac{2}{3}-\frac{6}{7}\div\frac{3}{2}=$$

$$=\frac{4}{5}\times\frac{5}{3}-\frac{6}{7}\div\frac{3}{2}$$

$$=\frac{4}{3}-\frac{6}{7}\div\frac{3}{2}$$

$$=\frac{4}{3}-\frac{6}{7}\times\frac{2}{3}$$

$$=\frac{4}{3}-\frac{4}{7}$$

$$=\frac{28}{21}-\frac{16}{21}$$

$$=\boxed{\frac{12}{21}}$$