COMPLEX FRACTIONS

A complex fraction is _____

_____

_____

example 1:

$$\frac{\frac{3}{4}}{\frac{5}{6}}$$

we can multiply the top and bottom by the LCD

LCD = ____

$$\frac{\frac{3}{4}(\ \ )}{\frac{5}{6}(\ \ )} =$$

Another method:

$$\frac{\frac{3}{4}}{\frac{5}{6}} = \frac{3}{4} \div \frac{5}{6} =$$

=

But this latter method ONLY works when you have _____

_____

_____

example 2:

$$\frac{\frac{2}{3}+\frac{3}{4}}{\frac{5}{6}-\frac{3}{2}} \qquad \text{LCD} = \_\_\_\_$$

$$\frac{\frac{2}{3}+\frac{3}{4}}{\frac{5}{6}-\frac{3}{2}} = \frac{12\left(\frac{2}{3}\right)+12\left(\frac{3}{4}\right)}{12\left(\frac{5}{6}\right)-12\left(\frac{3}{2}\right)}$$

$$= \frac{4(2)+3(3)}{2(5)-6(3)}$$

$$= \frac{8+9}{10-18}$$

$$= \frac{17}{-8}$$

$$= -\frac{17}{8}$$

Note: Remember, $\frac{17}{-8} = \frac{-17}{8} = -\frac{17}{8}$

We prefer to write $-\frac{17}{8}$ as our final answer.

example 3:

a) $\dfrac{\frac{1}{2} - \frac{1}{3}}{\frac{1}{2} + \frac{1}{3}}$ LCD =

b) $\dfrac{1 + \frac{3}{4}}{1 - \frac{3}{4}}$ LCD =

example 4:

$$\frac{2 - \frac{2}{3} + \frac{3}{4}}{\frac{1}{2} - 3 + \frac{5}{6}}$$

COMPLEX FRACTIONS Practice Problems

Evaluate:

1. $\dfrac{\frac{2}{3}}{\frac{1}{4}}$

2. $\dfrac{\frac{1}{2}+\frac{3}{4}}{\frac{4}{3}+\frac{1}{6}}$

3. $\dfrac{\frac{1}{3}+2-\frac{1}{6}}{\frac{2}{9}+\frac{5}{6}-1}$