Complex Fractions: (also known as Compound Fractions)
Fractions whose numerators and/or denominators also have fractions.

Simplify:

$$\frac{3 + \frac{4}{3}}{\frac{11}{6} - 1}$$

There are many methods to do this, I'll focus on two methods.

$$\frac{3 + \frac{4}{3}}{\frac{11}{6} - 1}$$

Find LCM of all the denominators in the complex fraction.
Then multiply the numerator and denominator of the complex fraction by this LCM.

LCM of 3 and 6 is 6.

$$\frac{6}{6} \cdot \frac{\left(3 + \frac{4}{3}\right)}{\left(\frac{11}{6} - 1\right)} = \frac{18 + 8}{11 - 6}$$

$$= \boxed{\frac{26}{5}}$$

Another method:

$$\frac{3 + \frac{4}{3}}{\frac{11}{6} - 1}$$

Get ALL the "parts" of the complex fraction to have the LCD.
Then you can cancel all of the denominators.

LCD of 3 and 6 = 6

$$\frac{\frac{6}{6} \cdot \frac{3}{1} + \frac{4}{3} \cdot \frac{2}{2}}{\frac{11}{6} - 1 \cdot \frac{6}{6}} = \frac{\frac{18}{6} + \frac{8}{6}}{\frac{11}{6} - \frac{6}{6}}$$

$$= \frac{18 + 8}{11 - 6}$$

$$= \boxed{\frac{26}{5}}$$

Simplify: $\dfrac{\dfrac{2}{3} - \dfrac{7}{8}}{\dfrac{3}{4} + \dfrac{5}{6}}$

LCM of
3, 8, 4, & 6
is 24

$$\frac{24}{24} \cdot \frac{\left(\dfrac{2}{3} - \dfrac{7}{8}\right)}{\left(\dfrac{3}{4} + \dfrac{5}{6}\right)} = \frac{16 - 21}{18 + 20}$$

$$= \boxed{\frac{-5}{38}}$$