How fully figure out a fraction

$= 5\frac{3}{4} + 2\frac{1}{3}$ ⟵ (1/3 is a bit more than ¼. That meant that 5 ¾ + 2 1/3 had to be a bit more than 5+2+ ¾ + ¼ = 8. I estimated the anwser would be 8)

$=\frac{23}{4} + \frac{7}{3}$ ⟵ (I renamed the mixed numbers as improper fractions).

$=\frac{23*3}{4*3} + \frac{7*4}{3*4}$ ⟵ (I use the common denominator of 12 to add the fractions. I changed the numerators so that the fractions would be equivalent and then, I added them.)

$=\frac{69}{12} + \frac{28}{12}$

$=\frac{69+28}{12}$

$=\frac{97}{12}$

$=8\frac{1}{12}$ ⟵ (I renamed the improper fraction as a mixed number so that I could see the equation more clearly.)

Therefore, the answer to the fraction/equation is $\mathbf{8\frac{1}{2}}$.