You cannot add fractions with different denominators.

Denominator → $\frac{3}{4}$

We need to find a common denominator.

4 x
4
8
12
16

16 x
16

16 is in both, so is the common denominator.

$$\frac{3}{4} + \frac{9}{16} = \frac{\quad}{16} + \frac{9}{16}$$

$\frac{9}{16}$ does not need to change, as 16 is already the denominator.

We need to convert (change) $\frac{3}{4}$, so that is has 16 as the denominator.

To do this, we find an equivalent fraction.

$$\frac{3}{4} = \frac{12}{16}$$

$4 \times 4 = 16$ so $3 \times 4 = 12$

Our question now reads:

$$\frac{3}{4} + \frac{9}{16} = \frac{12}{16} + \frac{9}{16} = \frac{12+9}{16} = \frac{21}{16}$$

↖ The denominator stays the same.