

Butterfly Fractions

To add or subtract fractions the butterfly way,

1. Write the fractions side-by-side as usual and draw two wings along the diagonals made by the numerator of one fraction and the denominator of the other fraction and draw an antenna on each wing.
2. As suggested by the wings, *that look like a multiplication sign*, multiply the numbers in each wing and put the product in the antenna for the wing.
3. Think or say: "This poor butterfly needs a body." To give it a body, connect the bottom parts of the wings with a body-like loop and multiply the two denominators it connects, putting the product inside the body.
4. Add or subtract the numbers in the antennae in keeping with what is being done to the fractions and put the result over the number in the body.
5. If necessary, reduce or simplify the result.

The butterflies below for $\frac{3}{4} + \frac{2}{5}$ and $\frac{3}{4} - \frac{2}{5}$ illustrate the procedure. The only difference in subtracting the fractions versus adding them is in the last step where the numbers in the antennae are subtracted instead of added.

