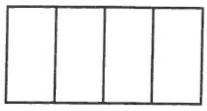
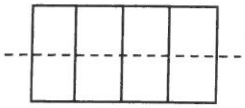
**Adding fractions with pictures example:**

$^1/_4 + {}^1/_2$

Think of a rectangle that is broken into **quarters** vertically:



What would it look like if you broke it into **halves** horizontally?



How many pieces do you have now? _____

If you shade ¼ of this shape, how many pieces do you shade? _____

If you shade ½ of this shape, how many pieces do you shade? _____

How many would this make altogether? _____ What fraction is this? _____

Now, how could you apply this to adding one third and one fifth? Draw it below and explain what you are doing to find the answer:

**Try these on your own:**

1. $^2/_5 + {}^1/_2 =$

2. $^2/_7 + {}^1/_3 =$

Explain the pattern for adding fractions using pictures:

*Below are sets of fractions for you to add and subtract. You can use pictures if they help or you can do it in your head. Give an explanation for how you did each one.*

| Questions: | Working Space and Explanation: |
|---|---|
| $^2/_3 + {}^3/_4$ | |
| $^4/_5 - {}^1/_2$ | |
| $^3/_8 + {}^1/_4$<br>See if you can do this one in your head.<br>Hint: what is $^1/_4$ the same as? | |
| $^1/_5 - {}^1/_7$ | |
| $^1/_{10} + {}^3/_5$<br>See if you can do this one in your head.<br>Hint: what is $^3/_5$ the same as? | |

**Extension Questions:**

If the answer was $^7/_{12}$ and one of the fractions that was added was $^1/_2$, what was the other fraction?

How would your answer change if one of the fractions was $^1/_4$ instead of $^1/_2$?