## Same denominator problems

## http://topdrawer.aamt.edu.au/Fractions/Good-teaching/Adding-and-subtracting/Same-denominator/Number-lines

Insert different fractions to suit the needs of the student's. Change the context to suggest different models and diagrams. For example: pizzas or pancakes for circles, chocolate bars for rectangles, fences for length, marbles for collections (discrete model), cups for volume etc.
All the problems should also be modelled on a number line and be recorded as equations.

## Addition

| Total 1 whole | Li and Daniel shared a pizza. Li ate $\frac{3}{8}$ of the pizza and Daniel ate $\frac{5}{8}$. <br> Was there any pizza left? |
| :--- | :--- |
| Total less than <br> 1 whole | The family bought some pizzas. I ate $\frac{2}{8}$ of the peperoni pizza and $\frac{3}{8}$ of <br> the ham and pineapple. How much pizza did I eat? |
| Total greater than <br> 1 whole | The family bought three pizzas. We ate $\frac{4}{8}$ of the peperoni pizza and $\frac{6}{8}$ of <br> the ham and pineapple, and $\frac{2}{8}$ of the vegetarian pizza. How much pizza <br> did we eat altogether? |

## Missing addend

| Making 1 whole | The painters started at one end of the fence and have now painted $\frac{3}{5}$ the <br> length of the fence. What fraction of the fence do they still have to <br> paint? |
| :--- | :--- |
| Making more than 1 <br> whole | The recipe needs $1 \frac{1}{3}$ cups of flour. I've already put in $\frac{2}{3}$ of a cup. <br> How much more do I have to put in? |

## Take-away subtraction

| Taking from 1 whole | Tom ate $\frac{3}{5}$ of a block of chocolate. How much was left? |
| :--- | :--- |
| Taking from less <br> than 1 whole | The day after my birthday there was still $\frac{5}{8}$ of my cake left. The family <br> ate another $\frac{3}{8}$. How much is there left now? |
| Taking from more <br> than 1 whole | My friend and I found $1 \frac{3}{4}$ pizzas in the fridge. He ate $\frac{2}{4}$ of a pizza and I <br> ate $\frac{3}{4}$. What fraction of a pizza was left? |

