

Interpreting missing number problems with a Bar Model

<table border="1" style="display: inline-table; margin-right: 20px;"> <tr><td colspan="2" style="text-align: center;">Whole number</td></tr> <tr><td style="text-align: center;">part</td><td style="text-align: center;">part</td></tr> </table> <div style="display: inline-block; vertical-align: middle;"> $part + part = whole$ $whole - part = part$ </div>			Whole number		part	part
Whole number						
part	part					
original problem	bar model representation	new number sentence to find the missing number.				
$10 - ? = 3$	<table border="1" style="margin: auto;"> <tr><td colspan="2" style="text-align: center;">10</td></tr> <tr><td style="text-align: center;">3</td><td style="text-align: center;">?</td></tr> </table>	10		3	?	$10 - 3 = ?$
10						
3	?					
$? + 7 = 10$ $7 + ? = 10$	<table border="1" style="margin: auto;"> <tr><td colspan="2" style="text-align: center;">10</td></tr> <tr><td style="text-align: center;">?</td><td style="text-align: center;">7</td></tr> </table>	10		?	7	$10 - 7 = ?$
10						
?	7					
$? - 3 = 7$	<table border="1" style="margin: auto;"> <tr><td colspan="2" style="text-align: center;">?</td></tr> <tr><td style="text-align: center;">3</td><td style="text-align: center;">7</td></tr> </table>	?		3	7	$3 + 7 = ?$
?						
3	7					

When interpreting a missing number problem, the use of a bar model helps children to understand where the parts and whole numbers are. Once they know this, they are then able to use their understanding to make a new number sentence to solve the problem and find the missing number.

The numbers used in the examples above are within 10 to help to reinforce the concept of solving missing number problems. Try with more complex number sentences to ensure your child's understanding, remember to remind children to think carefully about and discuss;

- 1- Where the parts and whole amounts are in each number sentences
- 2- How these numbers should be presented in the bar model.
- 3- How to write the new number sentences to solve the problem.