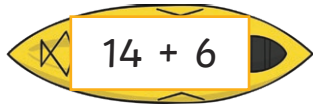
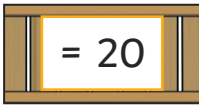

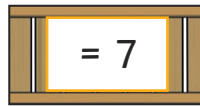


# Calculation Check

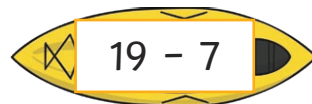
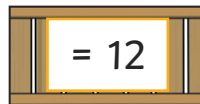
To be able to explain why addition is commutative but subtraction is not.

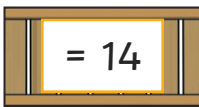
These number sentences have been turned around but some of them are now incorrect! Put a cross next to the number sentences that are incorrect.

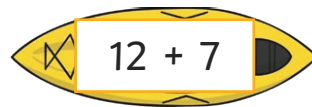
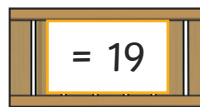
  $14 + 6$    $= 20$

  $12 - 19$    $= 7$

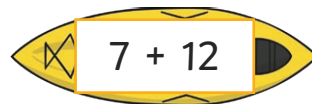
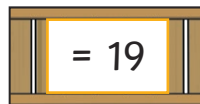
  $6 + 14$    $= 20$

  $19 - 7$    $= 12$

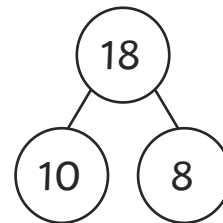
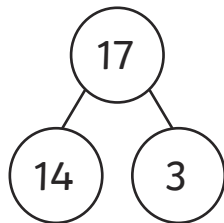
  $6 - 20$    $= 14$

  $12 + 7$    $= 19$



  $20 - 14$    $= 6$

  $7 + 12$    $= 19$


Write the number sentences on the boats for each of the part-whole diagrams. Get your partner to use equipment to check your number sentences.




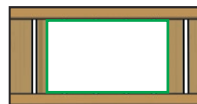
  $=$    $17$

  $=$    $18$


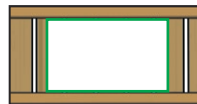
  $=$    $17$

  $=$    $18$

  $17$   $=$  

  $18$   $=$  

  $=$  

  $=$  

Use equipment to explain why addition is commutative.


Use equipment to explain why subtraction is not commutative.

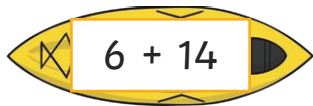
# Calculation Check


To be able to explain why addition is commutative but subtraction is not.

These number sentences have been turned around but some of them are now incorrect! Put a cross next to the number sentences that are incorrect. Use equipment to explain how you know.

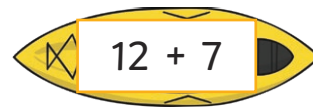
  $14 + 6 = 20$

  $12 - 19 = 7$

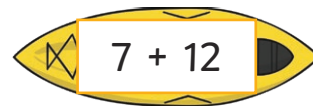
  $6 + 14 = 20$

  $19 - 7 = 12$

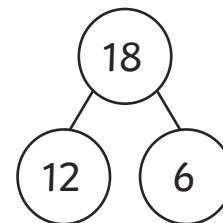
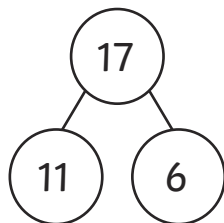
  $14 - 6 = 20$

  $12 + 7 = 19$

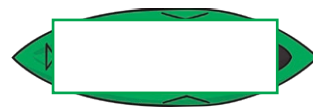

  $20 - 14 = 6$

  $7 + 12 = 19$

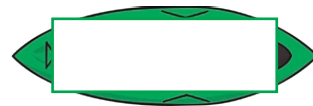

Write the number sentences on the boats for each of the part-whole diagrams. Get your partner to use equipment to check your number sentences.



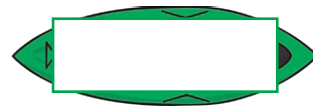

 =   $17$

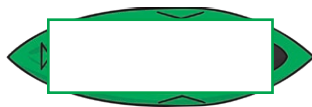

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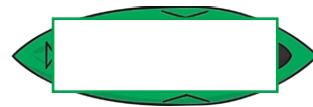
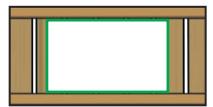
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Use equipment to explain why addition is commutative.

Use equipment to explain why subtraction is not commutative.

# Calculation Check

To be able to explain why addition is commutative but subtraction is not.

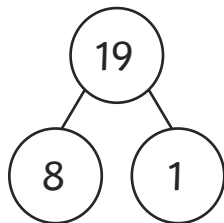
These number sentences have been turned around but some of them are now incorrect! Put a cross next to the number sentences that are incorrect. Use equipment to explain how you know. Write in the correct number sentence to complete the fact family.

		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>

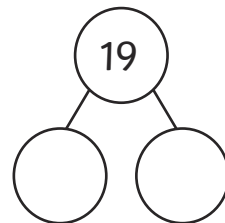
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>
		<input type="checkbox"/>



Write number sentences on the boats for the part-whole diagram. Find 2 different ways to complete the other part whole diagrams and write sentences to match them. Get your partner to use equipment to check your number sentences.



	=	
	=	
	=	
	=	



	=	
	=	
	=	
	=	

Use equipment to explain why addition is commutative.

Use equipment to explain why subtraction is not commutative.

# Calculation Check Answers

$14 + 6 = 20$

$12 - 19 = 7$

$6 + 14 = 20$

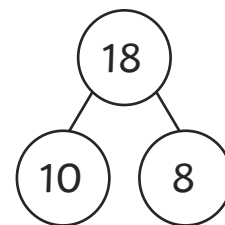
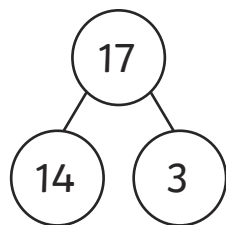
$19 - 7 = 12$

$6 - 20 = 14$

$12 + 7 = 19$

$20 - 14 = 6$

$7 + 12 = 19$



$14 + 3 = 17$

$10 + 8 = 18$

$3 + 14 = 17$

$8 + 10 = 18$

$17 - 3 = 14$

$18 - 8 = 10$

$17 - 14 = 3$

$18 - 10 = 8$

# Calculation Check Answers

$14 + 6 = 20$

$6 + 14 = 20$

$14 - 6 = 20$

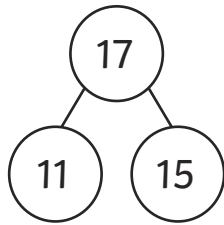
$20 - 14 = 6$

$12 - 19 = 7$

$19 - 7 = 12$

$12 + 7 = 19$

$7 + 12 = 19$

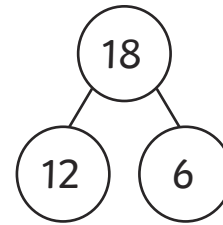


$11 + 6 = 17$

$6 + 11 = 17$

$17 - 6 = 11$

$17 - 11 = 6$



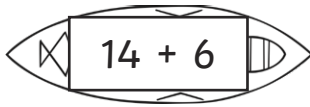
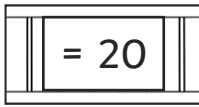
$12 + 6 = 18$

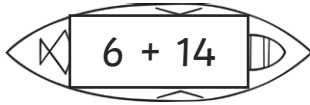
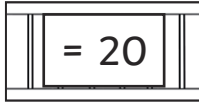
$6 + 12 = 18$

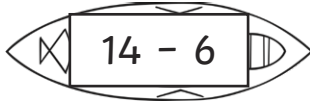
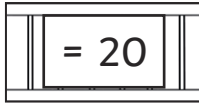
$18 - 12 = 6$

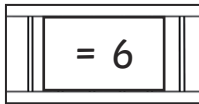
$18 - 6 = 12$

# Calculation Check Answers

  $14 + 6$    $= 20$

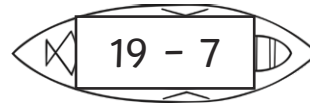
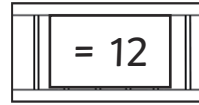
  $6 + 14$    $= 20$

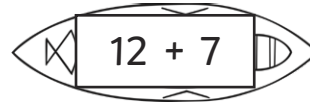
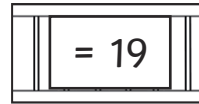
  $14 - 6$    $= 20$

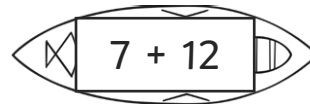
  $20 - 14$    $= 6$

$20 - 6 = 14$

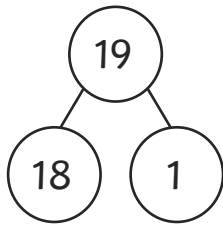
  $12 - 19$    $= 7$

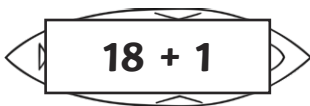
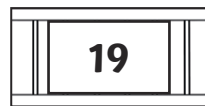
  $19 - 7$    $= 12$

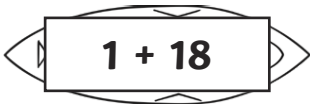
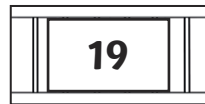
  $12 + 7$    $= 19$



  $7 + 12$    $= 19$



$19 - 12 = 7$



  $18 + 1$  =   $19$

  $1 + 18$  =   $19$

  $19 - 18$  =   $1$

  $19 - 1$  =   $18$

Other mathematical calculations will vary depending on the numbers chosen.