

ADD SINGLE-DIGIT NUMBERS EXPLAINING COMMUTATIVITY.

INVESTIGATIONS OVERVIEW PAGE

THIS PAGE IS A SUMMARY OF THE INVESTIGATIONS THAT STUDENTS MAY ENGAGE IN TO DEEPEN THEIR RELATIONAL UNDERSTANDING. INVESTIGATIONS WITH INSTRUCTIONS TO STUDENTS FOLLOW ON SUBSEQUENT PAGES.

- In pairs, children select 2 numbers they are ready to add. They add the numbers using their current strategy. They swap the numbers' places, then add the numbers again. Children explain commutativity to a friend. [Reflection: How can numbers commute when we add?](#)
- In pairs children add 2 numbers on a calculator. They commute the numbers and add again. They explain commutativity. [Reflection: How can numbers commute when we add?](#)
- Children select a friend, then stand apart from them. The teacher or another child gives the instruction. 'swap places!', and children swap places with their friend. The teacher or another child gives the instruction 'commute!', and children commute. This could be turned into a game where the last pair to commute sits down, until there is just one pair remaining who became the winners. This game teaches the concept and the metalanguage of commuting. [Reflection: What does commute mean?](#)

Add Single-digit Numbers Explaining Commutativity

Sit with a friend.

Select cards to make 2 numbers.

Add the numbers.

Swap the numbers' places, then add the numbers again.

Reflection: How can numbers commute when we add?

Add Single-digit Numbers Explaining Commutativity

Add 2 numbers on a calculator.

Commute the numbers and add again.

Did you get the same answer when you commuted the numbers?

Reflection: How can numbers commute when we add?