

Commutative property activities



1 Swap and check

Students build a fact with two colours of counters, swap the two groups, and rebuild the equation cards. The total stays the same.

"Swap your two groups — did any counters change? Build both equations."

"Is this one fact or two? Is the total the same?"

2 One gives the other

Show a fact card — $6 + 4 = 10$. Students say the fact they get for free, without calculating it.

"You know six plus four. Say the fact you get for free."

"How do you know it is true without counting it out?"

3 Missing addend

Show a card like $\square + 7 = 11$. Students rearrange the cards to $7 + \square = 11$ and count on from seven to find the missing addend.

"Rearrange so the known number is first, then count on. Seven plus what is eleven?"

"Why does reordering help you here?"

4 Non-example: does it work for take-away?

Build $8 - 3 = 5$ with cards, then swap it to $3 - 8$ and ask whether that is right. Students try to take eight from three with counters.

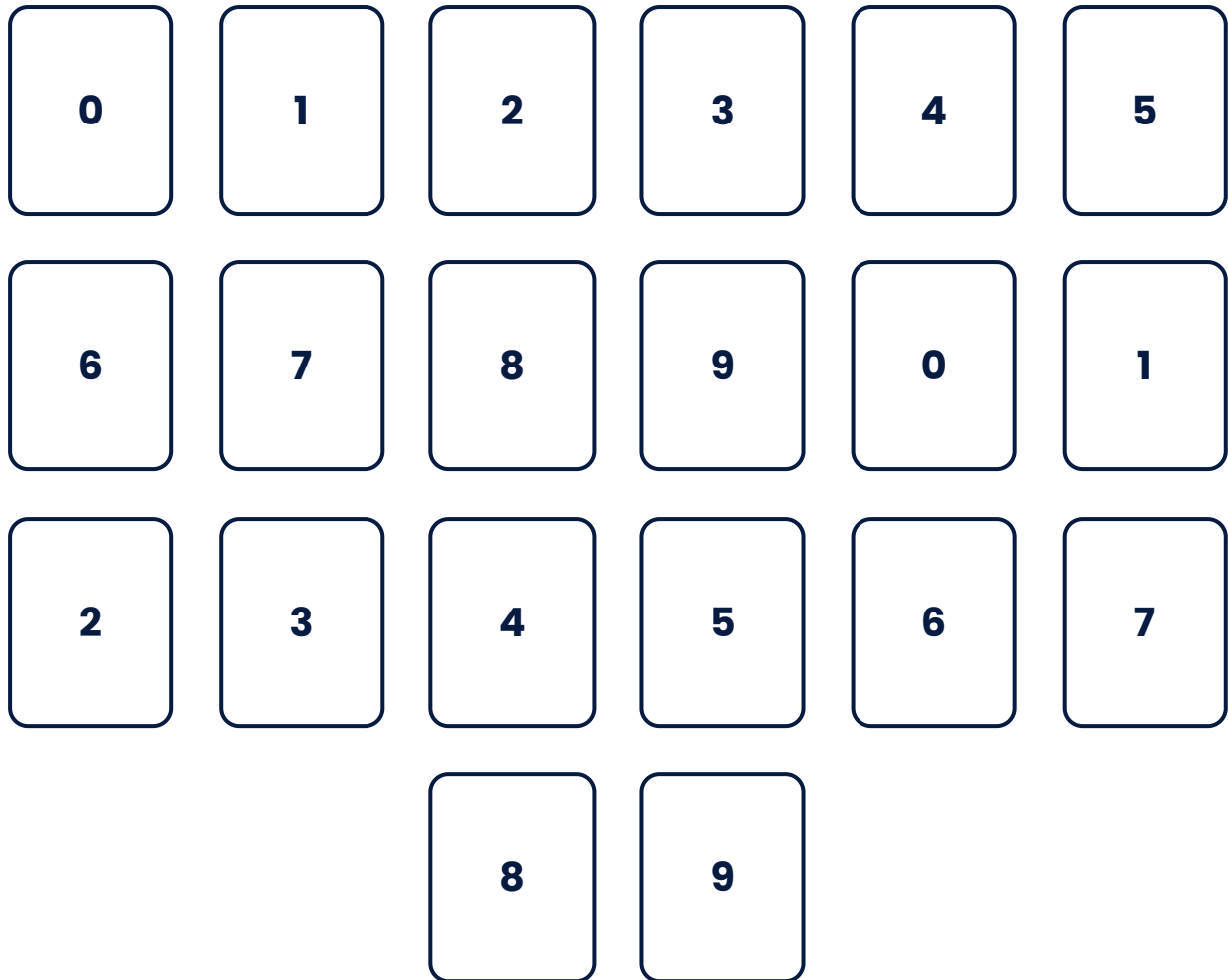
"I swapped a take-away — is three minus eight five? Show me with counters."

"So swapping works for adding only — why not for take-away?"

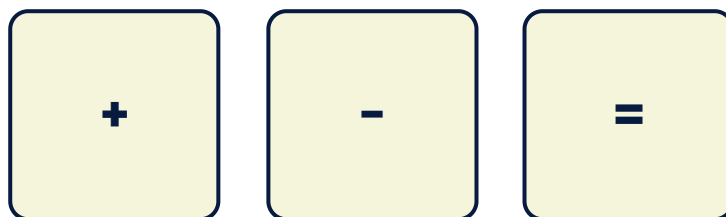
Commutative property — numeral and symbol cards



Print on A4. Cut out. Build a fact, then swap the two numbers to build its partner. (Two sets of 0–9, plus the signs.)



Signs



Commutative property — pair cards and missing-addend cards



Print on A4. Cut out. For a pair card, say the fact you get for free. For a missing-addend card, reorder so the known number is first, then count on.

Commutative pair cards

$$6 + 4 = 10$$

$$7 + 2 = 9$$

$$3 + 8 = 11$$

$$5 + 4 = 9$$

$$9 + 1 = 10$$

$$2 + 6 = 8$$

Missing-addend cards

$$\square + 7 = 11$$

$$\square + 6 = 9$$

$$\square + 8 = 10$$

$$\square + 5 = 12$$

$$\square + 9 = 13$$

$$\square + 4 = 10$$

Commutative property — boundary test: sort the cards



Print on A4. Cut out the claim cards and sort them — correct uses of commutativity (adding) go on the left, incorrect uses (take-away) go on the right. Explain each.

Claim cards

$$3 + 5 = 5 + 3$$

$$6 + 2 = 2 + 6$$

$$4 + 9 = 9 + 4$$

$$7 + 1 = 1 + 7$$

$$8 - 3 = 3 - 8$$

$$9 - 4 = 4 - 9$$

$$10 - 6 = 6 - 10$$

$$7 - 2 = 2 - 7$$

Correct — commutativity works

Incorrect — it does not work