Cars in the carpark

Annotation

Robert solves this start unknown problem by counting on from 8 to 14, keeping track on his fingers of the number of counts he makes. He knows that he can change the order of addends without changing the sum (the commutative property). He also recognises that this problem could have been solved using subtraction.

Problem: Cars in the carpark

The teacher shows this problem to the student and reads it with him as required:

There were some cars in the car park. Another 8 cars came in and parked and there were 14 altogether. How many cars were in the park to begin with?

Student response

Robert:	It's six.
Teacher:	Tell me how you did that.
Robert:	I said 8 and how many more is 14, then I counted up 9, 10, 11, 12, 13, 14 and got 6 (holding up his 6 fingers to show).
Teacher:	What do you know that helped you?
Robert:	I know that you can change it around to put the 8 at the front and ask '8 and what makes 14?'
Teacher:	Tell me why you did it that way.
Robert:	I could have done a takeaway too like, 14 – 8 but pluses are easier.
Teacher:	How would you record that?
Robert:	I'd write it like this (he writes, 8 + 6 = 14) because that's what I did.

$$8 + 6 = 14$$