

Dragon teeth

Annotation

James uses his place value knowledge to partition the 2-digit number in this problem. He understands that he can use his known multiplication facts, including his knowledge of multiples of ten, to solve this problem. He is able to recombine numbers and explain his solution.

Problem: Dragon teeth

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

There are three dragons. Each dragon has 21 teeth. How many teeth are there altogether?

Student response

James: There are 63 teeth.

Teacher: Tell me how you did that.

James: I know that 21 is just 20 and 1. So I said 3×20 and that's 60 because 3×2 is 6. Then I added 3 because it's really just 3×1 . So it's 63.

Teacher: Why did you do it that way?

James: Well I know that 20 is 10×2 . So when I am 'timesing' a number with zero on the end I can just use the simple thing I know and make it 10 times bigger.