Punnets of strawberries

Annotation

Waru multiplies simple decimals and fractions easily to solve this division problem. He recognises the efficiency of using the inverse operation of multiplication and simplifies the problem with a doubling proportional adjustment. While recognizing that a long division algorithm is an alternative method, he rejects it in favour of his more efficient mental strategy.

Problem: Punnets of strawberries

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

Strawberries cost $2.50 per punnet. Toni bought $35 worth, how many punnets did she buy?

Student response

Waru:	She bought 14 punnets.
Teacher:	Tell me how you did that.
Waru:	Well to solve the problem you need to work out how many times 2.5 goes into 35, so it's really 35 ÷ 2.5. I could do this using long division but the numbers are easy and I can just use multiplication. Double 2.5 is 5 so two punnets will cost $5. I know 7 x 5 = 35 so that means you can buy 7 lots of two punnets for $35. And 7 lots of 2 is 14 so the answer is 14 punnets.
Teacher:	What do you know that helped you?
Waru:	I know how to work with money but even as a simple decimal number, 2.5 is easy too. I also know that I can check my answer by just multiplying 14 by 2½. So 14 x 2 = 28 and then ½ of 14 which gives me 35.