Fuelling up

Annotation

Miro can write equality statements for a situation that involves an unknown and a proportional relationship, and she can explain her reasoning for the way she expresses the unknown.

Problem: Fuelling up

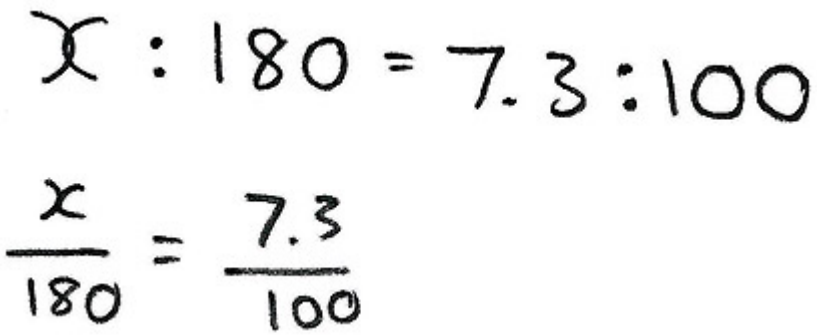
The teacher shows the student the following problem, reading it to them as required:

My car uses 7.3 litres of petrol per 100 kilometres. I'm going on a 180-kilometre journey.

Then the teacher asks the student:

Before doing any calculations to find the amount of fuel I will use, can you write an equation that describes the situation, using x for the amount of fuel?

Student Response



Teacher:	Tell me about what you have written.
Miro:	Well, I'll be using fuel at the same rate regardless of the distance travelled, so the first statement is just saying that: whatever fuel I use (that's *x*) for 180 kilometres will be at the same rate as 7.3 litres to 100 kilometres. Another way to see it, which makes the calculation easy too, is to show that the relationship is the same per kilometre. 1/100 of 7.3 is the same as 1/180 of the fuel used, or *x*.