## Sale time

## Annotation

Henare can write equality statements for a situation that involves an unknown and can explain his reasoning for the conventional algebraic notation he uses.

## **Problem: Sale time**

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

The regular price for a dress is \$120, but the shop is having a 30%-off sale.

Then the teacher asks the student:

Before doing any calculations to find the sale price of the dress, can you write an equation that describes the situation, using x for the sale price?

## **Student Response**

$$\chi = \frac{70}{100} \times 120$$

$$X = 120 - \frac{30}{100} \times 120$$

Teacher: Tell me about what you have written.

Henare: I thought the best way to show that the sale price of the dress is now 70% of the regular price is to write it as 70/100 of 120. That's the first one. The other way I thought about it was that the sale price, or x, is the same as the regular \$120 price minus the 30%, or 30/100 of that price. Both ways work, and finding x from there is easy.