

Late for class

Annotation

Mele can write an equality statement for a situation involving factors and an unknown and can explain her reasoning for the conventional algebraic notation she uses.

Problem: Late for class

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

12 students have been late for lessons this week. That's $\frac{3}{8}$ of the class.

Then the teacher asks the student:

Before doing any calculations to work out the number of students there are in the class, can you write an equation that describes the situation, using n for the number of students in the class?

Student Response

$$\frac{3}{8}n = 12$$

Teacher: Tell me about what you have written.

Mele: I know that n stands for all the kids in the class and that $\frac{3}{8}$ of the class have been late. So $\frac{3}{8}n$ is the same as saying $\frac{3}{8}$ of the class. Twelve is the same as $\frac{3}{8}$ of the class, so it's easy to work out how many in $\frac{1}{8}$ of the class, then use that to find the whole class, which would be $\frac{8}{8}$.