

Still chilly

Annotation

Foufili solves this problem by adding integers and in doing so demonstrates that he understands their practical application. With reference to the context he is able to succinctly explain the addition operation with integers and the relationship of the sum to zero.

Problem: Still chilly

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

Since last month the temperature in Anchorage, Alaska, has increased by 22°C . It is now 5°C . What was the temperature last month?

Student response

Foufili: -17°C .

Teacher: How did you work that out?

Foufili: Because if I take 22 from 5 I will have -17 .

Teacher: What do you know that helps you?

Foufili: Well I know if I add a positive number to a negative number it will reduce the size of the negative number and in this case the addition of $+22$ takes the temperature into positive numbers. That means the original temperature has to be warmer than -22 .

Teacher: How would you record that?

Foufili: I guess I'd write that as $-17 + +22 = +5$ because that explains quite simply what is happening to the temperature.