

Birthday cake decorations

Annotation

Regan understands that “perimeter” means the outside boundary. He is able to use his knowledge of the properties of a square to determine that only two measurements are required to calculate the perimeter of an object.

Problem: Birthday cake decorations

The teacher shows the student the square top of a birthday cake and gives the student a ruler. The teacher explains that a ribbon needs to be placed around the edge of the cake to finish the decorations. The teacher first asks the student to identify the perimeter of the cake and then asks him to measure the perimeter to find out what length of ribbon is required.

Where is the perimeter of the cake?



Student Response

Around the outside.

Regan: Regan measures the first side and records 24 centimetres. He then measures the second side and records 24 centimetres.

Teacher: How long do you think the next side will be?

Regan: 24 centimetres.

Teacher: Why?

Because it's a square and all the sides are the same length.

Regan: Regan then calculates the perimeter of the birthday cake using a mental strategy. It's 24 centimetres four times, so it's 96 centimetres of ribbon.