Calculating circumference

Annotation

Katie shows that she understands the relationship between the diameter and the circumference of a circle. She knows that the circumference is about three times larger (3.14) than the diameter, and she is able to calculate the circumference by multiplying the diameter by 3.14. She understands that this rule can be applied to all circles because the ratio between diameter and circumference is constant.

Problem: Calculating circumference

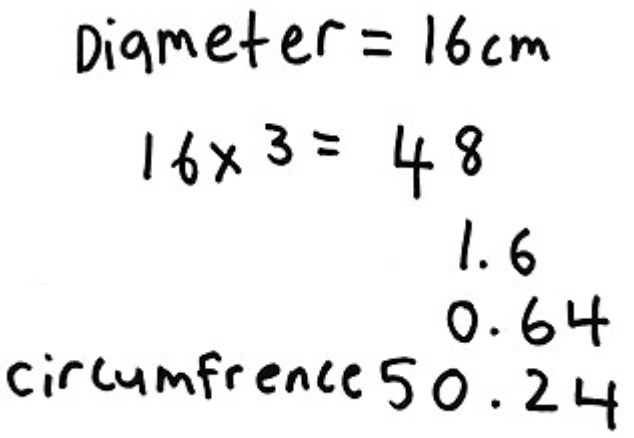
The teacher gives the student a ruler and a circular lid. Then the teacher asks the student to calculate the circumference of the lid.

Student Response

Teacher:	What are you measuring when you measure circumference?
Katie:	The perimeter of the circle.

Katie measures across the circle and calculates the diameter to be 16 centimetres. She records her calculation.

Teacher:	Why did you measure across the circle?
Katie:	Because, for any circle, the circumference is just over three times larger than the diameter. It’s actually 3.14.



Katie: The circumference is 16 x 3.14. So it’s 50.24 centimetres.