# Target 100

• • • • • • • • • • • • • • • • • • • • • **Objective** • • • • • • • • • • • • • • • • • • • • •

Understand and use the concept of place value in whole numbers and decimals, relating this to computation.
Calculate with decimals and understand the results; e.g. multiplying by numbers between 0 and 1.
Mentally estimate and approximate solutions to numerical calculations.

• • • • • • • • • • • • • • • **Explanation of the activity** • • • • • • • • • • • • • • •

A game for two players.
• Player 1 enters any 2-digit number into the calculator.
• Player 2 then multiplies this by another number so that the answer is as close as possible to 100.
• Players score points according to how close they are to 100:

within 10 = 1 point
within 5 = 2 points
within 1 = 5 points
exactly 100 = 10 points

• Player 2 then enters a number and the game continues.
• The first player to score 20 points wins.

While working on this activity, students will be extending their understanding of decimals and improving their estimation skills.

• • • • • • • • • • • • • • • • • **Using the calculator** • • • • • • • • • • • • • • • • •

Calculator functions used: Multiplication

Press the following buttons and then start operation.

[ON/C] [MODE] [0]

### *Example:*

Player 1 enters 28.

28
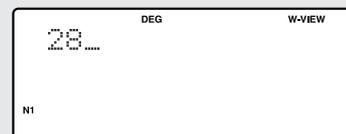
Player 2 multiplies this by 3.5.

[×] 3.5 [=]
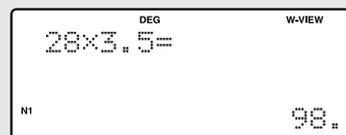
Player 2 scores two points.

The game continues until one player reaches 20 points.

# Target 100

## • • • • • • • • • • • Using the activity in the classroom • • • • • • • • • • •

This activity could be given to students with little introduction from the teacher. Alternatively, the game could initially be played between the teacher and a large group of students. It is important that students are encouraged to think carefully about the numbers they choose and that the teacher focuses on the students' mental skills. Most benefit is obtained from the activity when students are playing together in small teams, discussing their choices of a number to multiply by.

## • • • • • • • • • • • • • • Points for students to discuss • • • • • • • • • • • • • •

At the end of the activity, students' strategies should be discussed and compared.

### Further Ideas

• Play the game with different target numbers. For example, students could multiply or divide a random number to reach a target of 1.

• The first player multiplies a random number to aim for a target of 100. The second player then multiplies this answer to try and get even closer to 100. The player who gets the calculator to display a number between 99 and 101 wins.