# **Objective 9: Challenges**

You should attempt one difficulty % challenge, one difficulty %% challenge, and one difficulty %%% challenge.

# Text dice challenge

Difficulty: 🛠

Write a program that generates a random number and outputs the word, "one", "two", "three", "four", "five" or "six" without using a condition statement like 'if'.

## Notebook challenge

#### Difficulty: 🛠 🛠

Write a program that allows the user to store up to 10 notes. The program should have this functionality on a continual loop:

- 1. Output all the notes stored, numbered 0-9.
- 2. Ask the user to enter a number for a note to change.
- 3. Ask the user to enter the new note.
- 4. Over-write any existing note stored at that position.

## Currency converter challenge

#### Difficulty: 🛠 🛠

Write a program that stores the names and exchange rates of currencies in an array. The program should ask the user to enter the number of British pounds and a currency to convert into. The program should then output the exchange rate followed by the conversion from British pounds.

## Tanks challenge

Difficulty: 🛠 🛠 🛠

Tanks is a game for two players. At the start of the game, each player places 10 tanks on a board but does not reveal their location to their opponent. Each tank occupies one square on the board. Each player takes it in turn to enter a grid reference, e.g. 1,5. The player destroys the tank if the square is occupied by a tank. The player to destroy all their opponent's tanks first wins.

Example tanks board:

