

Objective 5: Challenges

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

RPG dice challenge

Difficulty: 🦄

In many RPG games, a number of different sided dice are used, not just the standard 6 sided dice. Write a program that asks the user how many sides a dice has and outputs a random number for that dice.

Divisible challenge

Difficulty: 🦄🦄

Write a program that asks the user for two numbers. The program should output whether the two numbers are exactly divisible by each other. If not, it should return the remainder. If the user enters a 0 the program should give an error message. Use the test table below to understand the correct outputs for this program:

Input 1	Input 2	Expected output
3	9	9 is exactly divisible by 3
5	15	15 is exactly divisible by 5
8	23	23 is not exactly divisible by 8, there is a remainder of 7
10	12	12 is not exactly divisible by 10, there is a remainder of 2
0	7	Error: you cannot divide by 0

Cash machine challenge

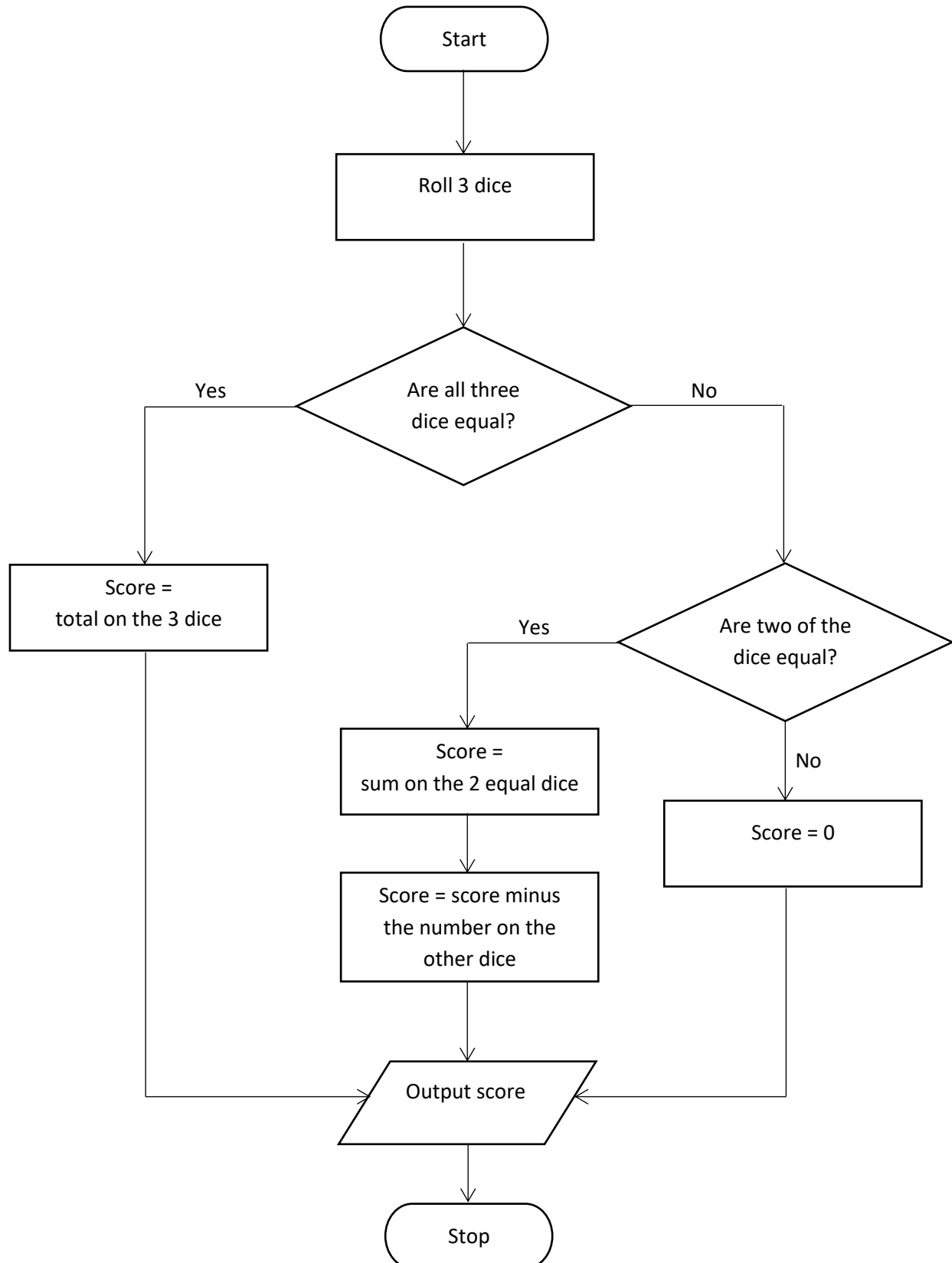
Difficulty: 🦄🦄

A cash machine dispenses £10 and £20 notes to a maximum of £250. Write a program that shows the user their balance of £231, asks them how much to withdraw, ensures this is a valid amount without going overdrawn and with the notes available, and outputs the new balance.

Dice game challenge

Difficulty: ✂✂

Write a program to calculate the score in this simple dice game:



Month challenge

Difficulty: ❌❌❌

Write a program that lets the user enter a year, and a month number between 1 and 12. The program outputs the month name for that month number and the number of days in the month. The input 3 would therefore display March has 31 days.

Remember February has 28 or 29 days depending on whether it is a leap year. It is a leap year if the year is exactly divisible by 4.