

Third Step:

Surviving A Weird Encounter

Answer the Sphynx's mathematical riddles so it does not devour you.



1. Well balanced

What number equals the average of its digits?



Solution 4.5

If you allow trailing zeros, there are three solutions with four digits and one with five.

1.500
2.250
3.750
1.8000

2. Clever countdown

You are playing a game with a friend, in which you start at the number 100 and take turns to deduct a number between 1 and 7. The winner is the person that lands on zero.

Which number do you choose first to be assured of winning?



Solution: 96

The winner is the person who lands on 8. (If you are on 8, your opponent cannot land on 0. But they will be forced to land on a number, from which you can land on zero.)

Thus the winner is the person who lands on 16, since this means they will land on 8, and therefore land on 0. Carry on up the eight times table and the closest number to the start is 96.