Section B

You are advised to spend no more than **20 minutes** on this section.

Enter your answers to **Section B** in your Electronic Answer Document.
You **must save** this document at regular intervals.

The question in this section asks you to write program code **starting from a new program/project/file**.

You are advised to save your program at regular intervals.

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0 1 Politeness of a number is defined as the number of ways it can be expressed as the sum of consecutive integers.

Figure 1 and **Figure 2** show examples of how the politeness of a number can be calculated.

Figure 1

```
Input: 15
Output: 3
Explanation:
There are only three ways to express
15 as sum of consecutive integers i.e.,
15 = 1 + 2 + 3 + 4 + 5
15 = 4 + 5 + 6
15 = 7 + 8
Hence answer is 3
```

Figure 2

```
Input: 9
Output: 2
There are two ways of representation:
9 = 2 + 3 + 4
9 = 4 + 5
Hence answer is 2
```

What you need to do

Task 1
Write a program that will work out the politeness value of a given number. The program should display a suitable prompt asking the user to input the number to use and then output the politeness value.

Task 2
Test the program works by entering the number `90`.

Task 3
Test the program works by entering the number `121`.

Evidence that you need to provide
Include the following in your Electronic Answer Document.

0 1 . 1 Your PROGRAM SOURCE CODE.

[12 marks]

0 1 . 2 SCREEN CAPTURE(S) for the test showing the output of the program when `90` is entered.

[1 mark]

0 1 . 3 SCREEN CAPTURE(S) for the test showing the output of the program when `121` is entered.

[1 mark]