

Self-Review Questions

Conditionals

Note: Feel free to use extra functions to further break down your program. Sometimes that little bit of extra effort can make a program much smaller.

Q5. You're given three sticks of lengths a , b , c . Define a function, `makes_triangle` that takes the lengths as parameters and determines whether a triangle can be formed by making use of the [triangle inequality](#).

In the main program, take a , b , c as input on separate lines and call the function `makes_triangle` inside a print statement.

Note: $a, b, c > 0$

Sample Input 1:

3
4
5

Sample Output 1:

True

Sample Input 2:

1
1
3

Sample Output 2:

False

Q6. You're in a triangular room with sides of lengths a , b , c . Define a function, `is_right` that takes the lengths as parameters and determines whether the triangle is right-angled, through the use of the [pythagorean theorem](#).

In the main program, take a , b , c as input on separate lines and call the function `is_right` inside a print statement.

Note: $a, b, c > 0$

Sample Input 1:

3
4
5

Sample Output 1:

True

Sample Input 2:

9
9
9

Sample Output 2:

False

Q7. Write a function `next_day` that takes a date in the form of three parameters, in the order `year`, `month`, `day` and returns its immediate successor.

In the main program, take `year`, `month`, `day` as input on separate lines and call the function `next_day` inside a print statement.

Note:

You do not have to account for leap years. Make sure to account for all other edge cases.

Sample Input 1:

2013

11

18

Sample Output 1:

2013-11-19

Sample Input 2:

2013

11

30

Sample Output 2:

2013-12-01

Sample Input 3:

2013

12

31

Sample Output 2:

2014-01-01