

2025-10-10/replaceDigit.py

```
1 # Propose an algorithm that replaces
2 # the appearances of a digit,
3 # a in a number with another digit, b.
4 # Example n = 1357321, a = 3, b = 9, the number becomes n = 1957921.
5
6 n = int(input("Enter an integer: "))
7 a = int(input("Enter the digit to be replaced (a): "))
8 b = int(input("Enter the digit to replace with (b): "))
9
10 x = 0 # new number
11 p = 1 # position multiplier
12 while n != 0:
13     digit = n % 10 # extract the last digit
14     if digit == a: # check if it is the digit to replace
15         digit = b # replace it with b
16     x = x + digit * p # add the digit to the new number
17     n = n // 10 # remove the last digit from n
18     p = p * 10 # update the position multiplier
19
20 print("The new number is: ", x)
21
22
```