

## Consonants and Vowels

[12 marks] The letters A, E, I, O and U are referred to as vowels. All other letters are consonants except for Y, which is sometimes a vowel and sometimes a consonant.

Create a program that reads letters from the user and reports whether each letter is a vowel, a consonant, or sometimes a vowel and sometimes a consonant. If the user enters a character that is not a letter, or if the user enters more than one character, then your program should report an appropriate error message. Your program should continue reading characters and reporting the result until the user enters a blank line. Ensure that your program works correctly for both uppercase and lowercase letters.

Hint: The `len` function takes a string of characters as its only parameter and returns the number of characters in the string as its only result. The expression `len(ch) == 1` is True when the user only entered one character.

Use the following lines to create your program. Some lines may not be required for a correct solution. Lines may be used multiple times.

```
1: ch = input("Enter a letter: ")
2: ch = int(input("Enter a letter: "))
3: elif ch == "e" and ch == "E":
4: elif ch == "e" or ch == "E":
5: elif ch == "i" and ch == "I":
6: elif ch == "i" or ch == "I":
7: elif ch == "o" and ch == "O":
8: elif ch == "o" or ch == "O":
9: elif ch == "u" and ch == "U":
12: elif ch == "u" or ch == "U":
13: elif ch == "y" and ch == "Y":
14: elif ch == "y" or ch == "Y":
15: elif ch >= "a" and ch <= "z" and len(ch) == 1:
16: elif ch >= "A" and ch <= "Z" and len(ch) == 1:
17: elif ch >= "a" or ch <= "z" or len(ch) == 1:
18: elif ch >= "A" or ch <= "Z" or len(ch) == 1:
19: else:
23: if ch == "a" and ch == "A":
24: if ch == "a" or ch == "A":
25: print("Sometimes", ch, "is a consonant. Sometimes it's a vowel")
26: print("That wasn't a valid letter.")
27: print(ch, "is a consonant")
28: print(ch, "is a vowel")
29: while ch != "":
34: while ch == "":
```

Sample runs of the program are shown on the next page. Values that were typed by the user are shown in bold.

### Sample Run #1:

Enter a letter: **y**  
Sometimes y is a consonant. Sometimes it's a vowel  
Enter a letter:

### Sample Run #2:

Enter a letter: **A**  
A is a vowel  
Enter a letter: **B**  
B is a consonant  
Enter a letter: **C**  
C is a consonant  
Enter a letter: **D**  
D is a consonant  
Enter a letter: **Y**  
Sometimes Y is a consonant. Sometimes it's a vowel  
Enter a letter:

### Sample Run #3:

Enter a letter: **aa**  
That wasn't a valid letter.  
Enter a letter: **b**  
b is a consonant  
Enter a letter: **eieio**  
That wasn't a valid letter.  
Enter a letter: **123**  
That wasn't a valid letter.  
Enter a letter: