Python Exercises.

1. Write a function that will take in a string parameter and return a string in its equivalent Morse code.

   https://en.wikipedia.org/wiki/Morse_code
   https://en.wikipedia.org/wiki/Morse_code#/media/File:International_Morse_Code.svg

```
[In]   morse_code("Hello World”)

[Out]  ‘....   .   .-..   .-..   ---          .--   ---   .-.
.-..   -..’
```

2. Write a function that takes in a string parameter and returns a list and a count of the unique letters in the string. (Uppercase and lowercase letters should not be counted as different letters and symbols should be ignored.)

```
[In]   unique_letters("Hello World”)

[Out]  (['H', 'E', 'L', 'O', 'W', 'R', 'D'], 7)
```

3. Write a function that accepts a string and prints to screen the number of uppercase letters and lowercase letters.

```
[In]   case_count("Hello World”)

[Out]  (‘Uppercase: 2’, ‘Lowercase: 8’)
```

4. Write a function to print out the scrabble word score for a word supplied as a parameter.

   https://en.wikipedia.org/wiki/Scrabble

```
[In]   get_scrabble_score(“wibble”)

[Out]  31
```

5. Write a function that will print out the circumference or perimeter and the area of either a circle or rectangle. The first parameter will either be 'circle' or

'rectangle', if a circle is requested, only 1 further parameter is supplied the radius, if a rectangle is requested, 2 further parameters are supplied - the length and height of the rectangle.

```
[In]   shape_data("circle”, 15)

[Out]  (‘C: 94.25’, ‘A: 706.86’)

[In]   shape_date(“rectangle”, 20, 10)

[Out]  (‘P: 60’, ‘A: 200’)
```

6. Write a scheduling function to take two dates (todays_date & scheduled_date) in the following format '26th March' and print out if the date has passed or not.

```
[In]   date_passed("21st February”, “3rd March”)

[Out]  False

[In]   date_passed("4th April”, “3rd March”)

[Out]  True
```