Practice Questions

Question 1: String Definition and Slicing

Create a string variable named `greeting` with the value "Hello, Shivam!". Print the first 5 characters and the last 5 characters of the string.

Solution:

```
greeting = "Hello, Shivam!"
print(greeting[:5])   # Output: "Hello"
print(greeting[-5:])  # Output: "ivam!"
```

Question 2: String Length

Write a Python program that creates a string variable `sentence` with the value "Python programming is fun!". Use the `len()` function to print the length of the string.

Solution:

```
sentence = "Python programming is fun!"
print(len(sentence))  # Output: 27
```

Question 3: String Methods

Given a string `name` with the value "shivam", use string methods to:

1. Check if the string ends with "vam".
2. Count the occurrences of the letter "a".
3. Capitalize the first letter of the string.

Solution:

```
name = "shivam"
print(name.endswith("vam"))   # Output: True
print(name.count("a"))        # Output: 1
print(name.capitalize())      # Output: "Shivam"
```

Question 4: Find and Replace

Create a string variable `text` with the value "I love apples, apples are my favorite fruit.". Find the index of the first occurrence of the word "apples" and replace "apples" with "bananas".

Solution:

```
text = "I love apples, apples are my favorite fruit."
index = text.find("apples")
print(index)  # Output: 7

replaced_text = text.replace("apples", "bananas")
print(replaced_text)  # Output: "I love bananas, bananas are my favorite fruit."
```

Question 5: Escape Sequences

Write a Python program that prints the following text using escape sequences:

He said, "Python is awesome!"
This is a new line.
This is a tab: .

Solution:

```
print("He said, \"Python is awesome!\"\nThis is a new line.\nThis is a tab:\t.")
```