1. Let's Run Some While Loops!

a. In the box below, write the output of the following code.

```
my_variable = 0
while my_variable < 5:
    print(my_variable + my_variable)
    my_variable = my_variable + 1
```

Solution:

```
0
2
4
6
8
```

b. In the box below, write the output of the following code.

```
special_word = "addis ababa"
while len(special_word) > 5:
    print(special_word)
    special_word = special_word[2:-2]
```

Solution:

```
addis ababa
dis aba
s a
```

2. Writing Loops

Fill in the blanks of the code to produce the given output.

```
counter = 0
while ____________________________:

    print("Selam")

    counter = ____________________________
```

```
Selam
Selam
Selam
Selam
```

Solution: `counter < 4`, `counter = counter + 1`

3. Writing More Loops

Fill in the blanks of the code to produce the given output.

```
my_animals = ["dog", "bird", "fish", "cow"]

current_index = len(my_animals) - 1

while ____________________________:

    _________________________________

    current_index = ____________________________
```

```
cow
fish
bird
dog
```

Solution: `current_index >= 0, print(my_animals[current_index]), current_index - 1`

4. To Infinity... And Beyond?

a. What causes an infinite loop?

Solution: A loop where the conditional always evaluates to `True`.

b. Write code to create an infinite loop for collecting user input.

```
while ____________________ or ____________________:

    user_input = input("Provide user input: ")
```

Solution: Any conditional that always evaluates to `True`.

c. Write code to create an infinite loop for collecting user input.

```
while ____________________ and ____________________:

    user_input = input("Provide user input: ")
```

Solution: Any conditional that always evaluates to `True`.