

In []: Exercise 1.1.

In []: 1. In a `print` statement, what happens `if` you leave out one of the parentheses,
 Ans: If we leave out one `or` both of the parentheses `in` a `print` statement `in` a
 Example:

In [5]: `print("Hello, World!"`

Cell In[5], line 2

^
SyntaxError: incomplete input

In []: 2. If you are trying to `print` a string, what happens `if` you leave out one of the
`or` both?
 Ans:
 If we leave out one `or` both of the quotation marks `while` trying to `print` a str:

In [4]: `print("Hello, World!")`

Cell In[4], line 1

`print("Hello, World!")`
 ^
SyntaxError: unterminated string literal (detected at line 1)

In []: 3) You can use a minus sign to make a negative number like `-2`. What happens `if` you
 sign before a number? What about `2++2`?
 Ans: If we use a plus sign before a number it doesn't change its value; it remains the same.

In []:

In []: 4. In math notation, leading zeros are ok, `as in 09`. What happens `if` you `try` to
 What about `011`?
 Ans: We will get syntax error, like `in` the examples given below:

In [2]: `print(09)`

Cell In[2], line 1
`print(09)`
 ^

SyntaxError: leading zeros in decimal integer literals are not permitted; use an 0o prefix for octal integers

In [3]: `print(011)`

Cell In[3], line 1
`print(011)`
 ^

SyntaxError: leading zeros in decimal integer literals are not permitted; use an 0o prefix for octal integers

In []: 5. What happens **if** you have two values **with** no operator between them?
 Ans: If you have two values **with** no operator between them **in** a programming context
 Example:

In [1]: `result = 5 10`

Cell In[1], line 1
`result = 5 10`
 ^

SyntaxError: invalid syntax

In []: Exercise 1.2. Start the Python interpreter **and** use it **as** a calculator.

In []: 1. How many seconds are there **in** 42 minutes 42 seconds?
 Ans:

In [6]: `seconds= (42*60)+42`
`print(seconds)`

2562

2. How many miles are there in 10 kilometers? Hint: there are 1.61 kilometers in a mile
 Ans:

In [9]: `#1 mile = 1.61 KM`
`print(10/1.61)`

6.211180124223602

In []: 3. If you run a 10 kilometer race in 42 minutes 42 seconds, what is your average mile in minutes and seconds)? What is your average speed in miles per hour?
Ans:

```
In [10]: # Given data
distance_km = 10 # distance in kilometers
time_minutes = 42 # time in minutes
time_seconds = 42 # additional seconds

# Convert kilometers to miles
distance_miles = distance_km / 0.621371

# Convert total time to hours
total_time_hours = (time_minutes + time_seconds / 60) / 60

# Calculate average pace (time per mile)
average_pace = total_time_hours / distance_miles

# Convert average pace to minutes and seconds
pace_minutes = int(average_pace)
pace_seconds = int((average_pace - pace_minutes) * 60)

# Calculate average speed in miles per hour
average_speed_mph = distance_miles / total_time_hours

# Output the results
print("Average pace (time per mile):", pace_minutes, "minutes", pace_seconds, "seconds")
print("Average speed (miles per hour):", round(average_speed_mph, 2), "mph")
```

Average pace (time per mile): 0 minutes 2 seconds
Average speed (miles per hour): 22.61 mph