

Lucky Number Game

Enter a random number between 1 and 10. If you guess the lucky number, you win a prize!

Try Your Luck!

Computer programs allow users to enter data from a keyboard. But there can be some problems with this!

TASK 1

Open your IDE and create a new file. Copy the starter code and run it. It should create an error. An error is sometimes called an **exception**.

Task 2

Watch the video and follow along in your IDE. Answer the following questions.

- Which symbols can be used to express '**to the power of**' in Python?
- Which Python function can be used to convert a String to a whole number?
- What error is generated if you enter text when the program is expecting a number?
- Exception Handling can stop our program from crashing when there is an error:

```
Python
try:
    num = int(input("Enter a number: "))
    print(num**2)
except ValueError:
    print("Numbers only! Try again!")
```

The above code is very useful! However, it does not allow the user to **try again!** We need to repeat the process until we get a whole number. We need a **loop**!

```
Python
while True:
    try:
        num = int(input("Enter a number: "))
        print(num**2)
    except ValueError:
        print("Numbers only! Try again!")
```

`While True` is like an infinite loop! It will never end. However, if we get a number we want to break out of the loop. Describe the change we need to make to the above code to make this happen.

According to the problem, we only want to get positive numbers from the keyboard. If the user enters a negative number, we will ask the user to try again and **continue** back to the top of the loop; else we will **break** out of the loop!

Write the program that makes this happen here. How much can you remember without looking at the video!

```
Python
```

Rate your current understanding of:

variables	5 ▾
Data types eg String, int	5 ▾
try/except/ValueError	5 ▾
while True:	5 ▾
break	5 ▾
continue	5 ▾

**hint: don't panic if not much makes sense right now! Keep coding!*

Continue to the **Challenge** on the unit page!