

Maths

Explanation

Python can perform several mathematical functions, but these are only available when the data is treated as either an **integer** (a whole number) or a **floating-point** (a number with a decimal place). If data is stored as a string, even if it only contains numeric characters, Python is unable to perform calculations with it (see page 24 for a fuller explanation).



Example Code

Please note: In order to use some of the mathematical functions (**math.sqrt(num)** and **math.pi**) you will need to import the maths library at the start of your program. You do this by typing **import math** as the first line of your program.

```
print(round(num,2))
```

Displays a number rounded to two decimal places.

To the power of
(e.g. 10^2 is 10^{**2}).

math.sqrt(num)

The square root of a number, but you must have the line **import math** at the top of your program for this to work.

```
num=float(input("Enter number: "))
```

Allows numbers with a decimal point dividing the integer and fraction part.

math.pi

Gives you pi (π) to 15 decimal places, but you must have the line **import math** at the top of your program for this to work.

x // y

Whole number division (e.g. $15//2$ gives the answer 7).

x % y

Finds the remainder (e.g. $15\%2$ gives the answer 1).

