**Activity 3.1**

Copy and run the following lines of program. Complete the table to explain what the mathematical operators do.

>>> 60/5

>>> 987+34

>>> 564\*89

>>> 2\*\*5

>>> 43-5

>>> 11//2

>>> 11%2

|  |  |
| --- | --- |
| **Mathematical operator symbol** | **Operation** |
| / |  |
| + |  |
| \* |  |
| \*\* |  |
| - |  |
| // |  |
| % |  |

**Activity 3.2**

Make up some mathematical calculations of your own and add an example to the table for each mathematical operator.

|  |  |  |  |
| --- | --- | --- | --- |
| **Mathematical operator symbol** | **Operation** | **Example** | **Answer** |
| / | divide |  |  |
| + | add |  |  |
| \* | multiply |  |  |
| \*\* | exponential |  |  |
| - | subtract |  |  |
| // | integer division |  |  |
| % | modulus (remainder after the division) |  |  |

**Activity 3.3**

Write the program to display the text on the screen and calculate the missing gaps.

8 cats have 4 legs each

The cats have \_\_\_ legs in total

A farmer with 1089 sheep sells 56 of them

The farmer has \_\_\_\_\_ sheep left

4 children pick 56 flowers each

The children each have \_\_\_\_ flowers

**Activity 3.4**

Copy and run the following lines of program. What effect do the parentheses () have?

>>> 5 \* 3 / 6 + 4

>>> (5 \* 3) / (6 + 4)

**Activity 3.5**

Predict what you think will be the answer to the command below then run the command. Explain the answer.

15 / 2 \* 3 + 2

**Activity 3.6**

Make up some multiple-choice questions of your own on precedence, each with 4 answers. Check your answers are correct by using the interactive Python shell. Try your questions out on other students. You must be able to explain why the answer is correct.

Two examples are given below.

What is the correct answer to the following expression?

>>> 7 + 4 \* 5

1. 55
2. 27
3. 16
4. 33

What is the correct answer to the following expression?

>>> 6 -2 / 2 + 5

1. 0.57
2. 10
3. 7
4. 11