

Computer Applications - Python Exercise Sheet 1 - Solutions

Exercise 1.1 - Equations

Part I

```
>>> 5/2
```

```
2
```

```
>>> 5/2.0
```

```
2.5
```

```
>>> 5.0/2
```

```
2.5
```

```
>>> 7*(1/2)
```

```
0
```

```
>>> 7*(1/2.0)
```

```
3.5
```

```
>>> 5**2
```

```
25
```

```
>>> 5.0**2
```

```
25.0
```

```
>>> 5**2.0
```

```
25.0
```

```
>>> 1/3.0
```

```
0.3333333333333333
```

Part II

```
>>> (3*5)/(2+3)
```

```
3
```

```
>>> (7+9)**0.5*2
```

```
8.0
```

```
>>> (4-7)**3
```

```
-27
```

```
>>> (-19+100)**(1/4.0)
```

```
3.0
```

```
>>> 6 % 4
```

```
2
```

Exercise 1.3 - Variable Names

Variable Name	Legal?	Reason
and	NO	"and" is a logic operator
_and	YES	Variable names can start with _
var	YES	Variable names can start with letter
var1	YES	Variable names can start with letter and contain numbers
1var	NO	Variable names CAN'T start with number
my-name	NO	-means "minus" in Python. It can't be used in variable names
your_name	YES	Variable names can start with letter and contain _
COLOR	YES	Variable names can start with letter and can be written in either upper cases or lower cases. But variable names are case sensitive. COLOR and Color are two different variables.

Exercise 1.4 - Types

boolean – a, h

float – b

int – d, f

string – c, e, g, i