CHAPTER 1

EXERCISES

[1](https://automatetheboringstuff.com/2e/chapter1/#calibre_link-1657). Which of the following are operators, and which are values?

\* (**operator**)  
'hello'(**value**)  
-88.8 (**value**)  
- (**operator**)  
/ (**operator**)  
+ (**operator**)  
5 (**value**)

[2](https://automatetheboringstuff.com/2e/chapter1/#calibre_link-1658). Which of the following is a variable, and which is a string?

Spam - **variable**  
'spam'- **string**

[3](https://automatetheboringstuff.com/2e/chapter1/#calibre_link-1659). Name three data types.

* Integer, Floating-point and String.

[4](https://automatetheboringstuff.com/2e/chapter1/#calibre_link-1660). What is an expression made up of? What do all expressions do?

* Expression is made up of values and operator/operators, they will always evaluate to a single value.

[5](https://automatetheboringstuff.com/2e/chapter1/#calibre_link-1661). This chapter introduced assignment statements, like spam = 10. What is the difference between an expression and a statement?

* Expression is made up of values and operator/operators, they will always evaluate to a single value. Eg: 8/2, 8+5, etc
* In Statement we assign a particular value/expression to a variable with assignment operator (=) . Eg: name = ‘John’, total = 5 + 10, etc

[6](https://automatetheboringstuff.com/2e/chapter1/#calibre_link-1662). What does the variable bacon contain after the following code runs?

bacon = 20  
bacon + 1

* The variable bacon will contain the value of 20. Because the line bacon+1 is not assigned to bacon itself so the value of the variable is not changed. If we want to see the changes in bacon, we should use this statement bacon = bacon+1 (or) bacon+=1

[7](https://automatetheboringstuff.com/2e/chapter1/#calibre_link-1663). What should the following two expressions evaluate to?

'spam' + 'spamspam' ANS: **‘spamspamspam’**  
'spam' \* 3 ANS: **‘spamspamspam’**

[8](https://automatetheboringstuff.com/2e/chapter1/#calibre_link-1664). Why is eggs a valid variable name while 100 is invalid?

* Variable name cannot start with a number, and it cannot be a number. So, 100 is not a valid variable name whereas eggs don’t break any of the variable conventions. So, eggs can be a valid variable name.

[9](https://automatetheboringstuff.com/2e/chapter1/#calibre_link-1665). What three functions can be used to get the integer, floating-point number, or string version of a value?

int(), float() and str().

[10](https://automatetheboringstuff.com/2e/chapter1/#calibre_link-1666). Why does this expression cause an error? How can you fix it?

'I have eaten ' + 99 + ' burritos.'

* The above expression will cause error because, we are trying to concatenate an integer 99 to the strings.
* For avoiding this error, we should either convert the data type of 99 from int to string by using the str() function or we can simply use the integer inside the single quotes like ‘99’