

1. In the below elements which of them are values or an expression? eg:- values can be integer or string and expressions will be mathematical operators.

*

"hello"

-87.8

-

/

+

6

Ans-

Values- "hello", -87.8, 6

Expressions- *, -, /, +

2. What is the difference between string and variable?

Ans-

Strings are any alphabetical word within " " or ' '

Ex-

"himanshu"

"akash"

Variables are any thing a word or an alphabet which is having some value

Ex-

A=256

b=[4,6,6,54,6,4,54]

Akash=["him", 4,5,4,5,4,5,8,]

3. Describe three different data types.

Ans-

Boolean data type- contain true or false

Text data type- alphabetical word, sentence

Numeric data type- 1,2,3,4,5,6,7

Float data type- 25.56, 56.45, 48.58,

4. What is an expression made up of? What do all expressions do?

Expressions are mathematical symbols which do mathematical operations

Ex- *-multiply, +-addition, -subtraction

An expression is a construct made up of **variables, operators, and method invocations.**

5. This assignment statements, like `spam = 10`. What is the difference between an expression and a statement?

Ans-

Expression is a combination of values and functions that are combined and are interpreted by the compiler to create a new value

Statement-statement is a just a standalone unit of execution and does not return anything

6. After running the following code, what does the variable `bacon` contain?

```
bacon = 22
```

```
bacon + 1
```

Ans

-23

7. What should the values of the following two terms be?

```
'spam'+'spamspam'
```

```
'spam'*3
```

Ans-

```
'spamspamspam'
```

```
'spamspamspam'
```

8. Why is `eggs` a valid variable name while `100` is invalid?

Because `eggs` is a string that can assign a variable

But `100` can not assign a value because it's a numerical value

9. What three functions can be used to get the integer, floating-point number, or string version of a value?

Ans-

```
int()
```

```
float()
```

```
str()
```

10. Why does this expression cause an error? How can you fix it?

```
'I have eaten' + 99 + ' burritos'
```

Ans-

Because string and integer can be added