Lista 2 de Fundamentos de Computação

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Exercise 1

In [30]:
```
#a)
print(25-21)
```

```
4
```

In [31]:
```
#b)
print(14.99+27.95+19.83)
```

```
62.769999999999996
```

In [32]:
```
#c)
print(20*15)
```

```
300
```

In [33]:
```
#d)
print(2**10)
```

```
1024
```

In [34]:
```
#e)
print(min([3,1,8,-2,5,-3,0]))
```

```
-3
```

In [35]:
```
#f)
print(3==(4-2))
```

```
False
```

In [36]:
```
#g)
print(17//5 is 3)
```

```
True
```

In [37]:
```
#h)
print(17%5 is 3)
```

```
False
```

In [38]:
```
#i)
print(284%2 is 0)
```

```
True
```

In [39]:
```
#j)
print(284%2 is 0 and 284%3 is 0)
```

```
False
```

In [40]:
```
#k)
print(284%2 is 0 or 284%3 is 0)
```

```
True
```

Exercise 2

Write Python expressions involving strings s1, s2, and s3 that correspond to:

```
s3 = "0911"
```

In [41]:
```
s3 = '0911'
s1 = 'noblankspace'
s2 = 'another string'
```

In [42]:
```
#a)
print('11' in s3)
```

```
True
```

In [43]:
```
#b)
print(' ' in s1)
```

```
False
```

In [44]:
```
#c)
print(s1+s2+s3)
```

```
noblankspaceanother string0911
```

In [45]:
```
#d)
print('' in s1+s2+s3)
```

```
True
```

In [46]:
```
#e)
print(s3*10)
```

```
0911091109110911091109110911091109110911
```

In [47]:
```
#f)
print(len(s1+s2+s3))
```

```
30
```

Exercise 3

String s is defined to be

```
'abcdefgh'
```

Write expressions using s and the indexing operator `[]` that return the following strings:

In [48]:
```
s = 'abcdefgh'
```

In [49]:
```
#a)
print(s[0])
```

```
a
```

In [50]:
```
#b)
print(s[2])
```

```
c
```

In [51]:
```
#c)
print(s[-1])
```

```
h
```

In [52]:
```
#d)
print(s[-3])
```

```
f
```

Exercise 4

List lst is a list of prices for a pair of boots at differents online reatilers

In [53]:
```
lst = [170.,160.,165.,155.]
```

In [54]:
```
#a)
lst.append(160.)
print(lst)
```

```
[170.0, 160.0, 165.0, 155.0, 160.0]
```

In [55]:
```
#b)
print(lst.count(160.))
```

```
2
```

In [56]:
```
#c)
c = min(lst)
print(c)
```

```
155.0
```

In [57]:
```
#d)
print(lst.index(c))
```

```
3
```

In [58]:
```
#e)
lst.remove(c)
print(lst)
```

```
[170.0, 160.0, 165.0, 160.0]
```

In [59]:
```
#f)
lst.sort()
print(lst)
```

```
[160.0, 160.0, 165.0, 170.0]
```

Exercise 5

Write a Python expression that assigns to variable c

In [60]:
```
import numpy as np
#a)
c = np.sqrt(3**2 + 4**2)
print(c)
```

```
5.0
```

In [61]:
```
#b)
print(c == 5.0)
```

```
True
```

In [62]:
```
#c)
print(np.pi*10**2)
```

```
314.1592653589793
```

In [63]:
```
#d)
print(np.sqrt(2*5**2 ) < 7)
```

```
False
```