

```
import random
import matplotlib.pyplot as plt
import numpy as np
```

```
numero = 102
res = 0;
lanzo = "";
array = [];
resultado = [];
i = 0
aux = 0
aux1 = 0
aux2= 0
aux3 = 0
aux4 = 0
aux5 = 0
aux6 = 0
aux7 = 0
aux8 = 0
aux9 = 0
aux0 = 0
```

```
while i < 100:
    i +=1
    dado1 = (random.randint(1,6))
    dado2 = (random.randint(1,6))
    res = dado1 + dado2
    array.append(res)
```

```
for j in array:
    if j == 2:
        aux = aux + 1

    if j == 3:
        aux1 = aux1 + 1

    if j == 4:
        aux2 = aux2 + 1

    if j == 5:
        aux3 = aux3 + 1

    if j == 6:
        aux4 = aux4 + 1

    if j == 7:
        aux5 = aux5 + 1

    if j == 8:
```

```

        aux6 = aux6 + 1

    if j == 9:
        aux7 = aux7 + 1

    if j == 10:
        aux8 = aux8 + 1

    if j == 11:
        aux9 = aux9 + 1

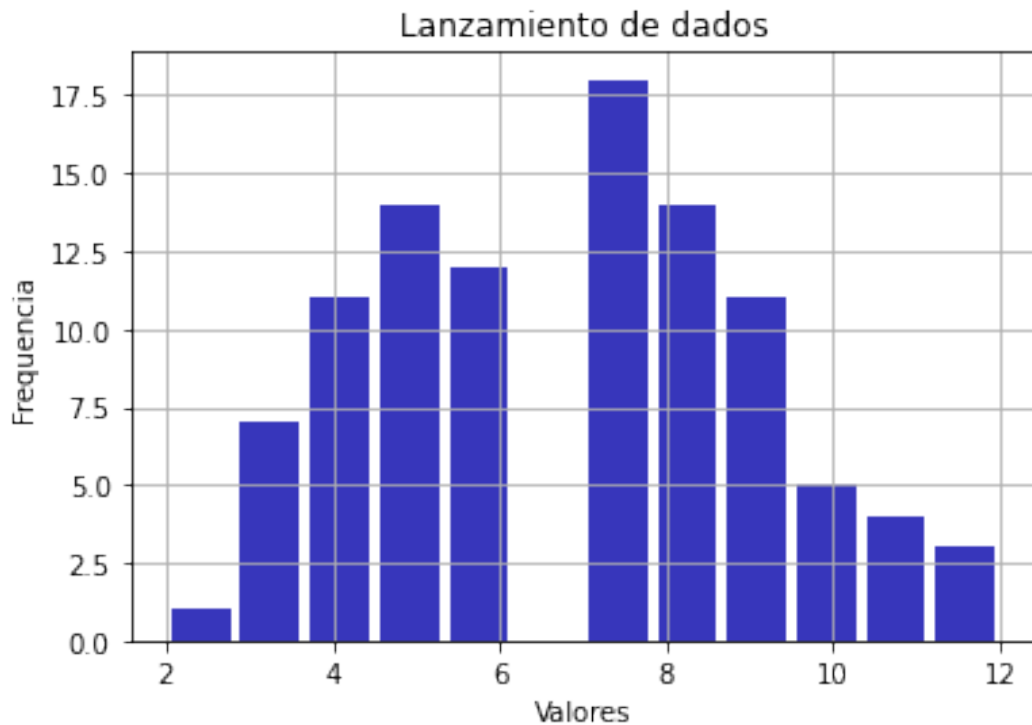
    if j == 12:
        aux0 = aux0 + 1

resultado = (aux,aux1, aux2, aux3, aux4, aux5, aux6, aux7, aux8, aux9,
aux0)
cadena =(2,3,4,5,6,7,8,9,10,11,12)
print (resultado)
print (cadena)

n, bins, patches = plt.hist(x=array, bins=12, color='#0504aa',
                             alpha=0.8, rwidth=0.85)
plt.grid(alpha=1)
plt.xlabel('Valores')
plt.ylabel('Frecuencia')
plt.title('Lanzamiento de dados')
print("Realizado por: William Chabla")

(1, 7, 11, 14, 12, 18, 14, 11, 5, 4, 3)
(2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12)
Realizado por: William Chabla

```



Con 100 datos

```
numero = 102
res = 0;
lanzo = "";
array = [];
resultado = [];
i = 0
aux = 0
aux1 = 0
aux2= 0
aux3 = 0
aux4 = 0
aux5 = 0
aux6 = 0
aux7 = 0
aux8 = 0
aux9 = 0
aux0 = 0

while i < 1000:
    i +=1
    dado1 = (random.randint(1,6))
    dado2 = (random.randint(1,6))
    res = dado1 + dado2
    array.append(res)

for j in array:
```

```

if j == 2:
    aux = aux + 1

if j == 3:
    aux1 = aux1 + 1

if j == 4:
    aux2 = aux2 + 1

if j == 5:
    aux3 = aux3 + 1

if j == 6:
    aux4 = aux4 + 1

if j == 7:
    aux5 = aux5 + 1

if j == 8:
    aux6 = aux6 + 1

if j == 9:
    aux7 = aux7 + 1

if j == 10:
    aux8 = aux8 + 1

if j == 11:
    aux9 = aux9 + 1

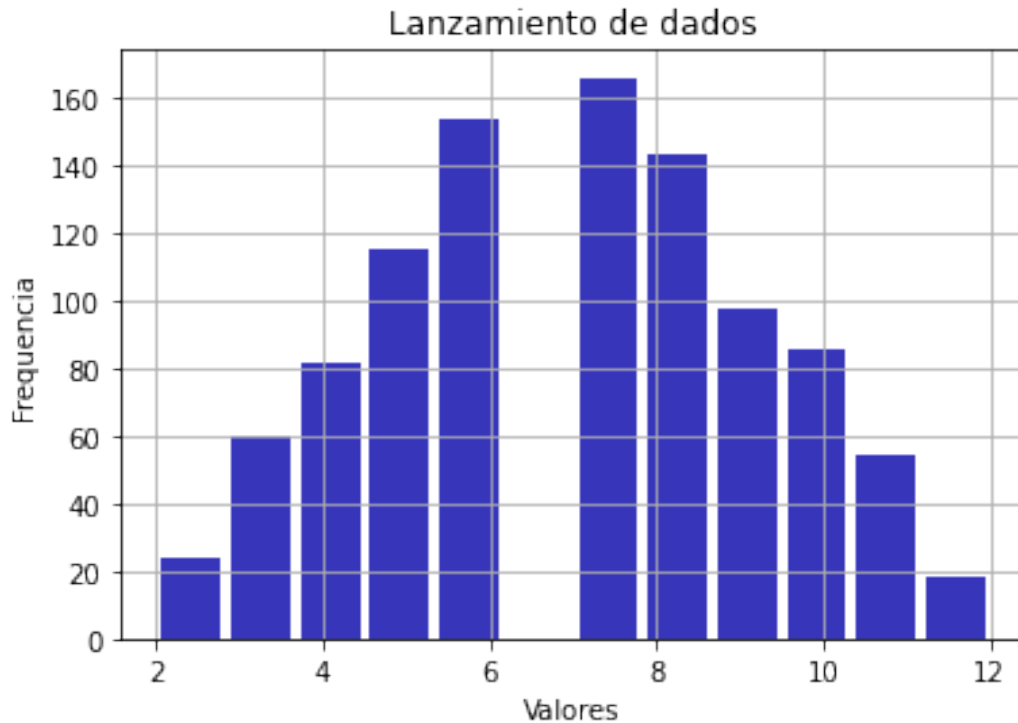
if j == 12:
    aux0 = aux0 + 1

resultado = (aux,aux1, aux2, aux3, aux4, aux5, aux6, aux7, aux8, aux9,
aux0)
cadena =(2,3,4,5,6,7,8,9,10,11,12)
print (resultado)
print (cadena)

n, bins, patches = plt.hist(x=array, bins=12, color='#0504aa',
                             alpha=0.8, rwidth=0.85)
plt.grid(alpha=1)
plt.xlabel('Valores')
plt.ylabel('Frecuencia')
plt.title('Lanzamiento de dados')
print("Realizado por: William Chabla")

(24, 60, 82, 115, 154, 166, 143, 98, 86, 54, 18)
(2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12)
Realizado por: William Chabla

```



Con 1000 datos

```
numero = 102
res = 0;
lanzo = "";
array = [];
resultado = [];
i = 0
aux = 0
aux1 = 0
aux2= 0
aux3 = 0
aux4 = 0
aux5 = 0
aux6 = 0
aux7 = 0
aux8 = 0
aux9 = 0
aux0 = 0

while i < 10000:
    i +=1
    dado1 = (random.randint(1,6))
    dado2 = (random.randint(1,6))
    res = dado1 + dado2
    array.append(res)

for j in array:
```

```

if j == 2:
    aux = aux + 1

if j == 3:
    aux1 = aux1 + 1

if j == 4:
    aux2 = aux2 + 1

if j == 5:
    aux3 = aux3 + 1

if j == 6:
    aux4 = aux4 + 1

if j == 7:
    aux5 = aux5 + 1

if j == 8:
    aux6 = aux6 + 1

if j == 9:
    aux7 = aux7 + 1

if j == 10:
    aux8 = aux8 + 1

if j == 11:
    aux9 = aux9 + 1

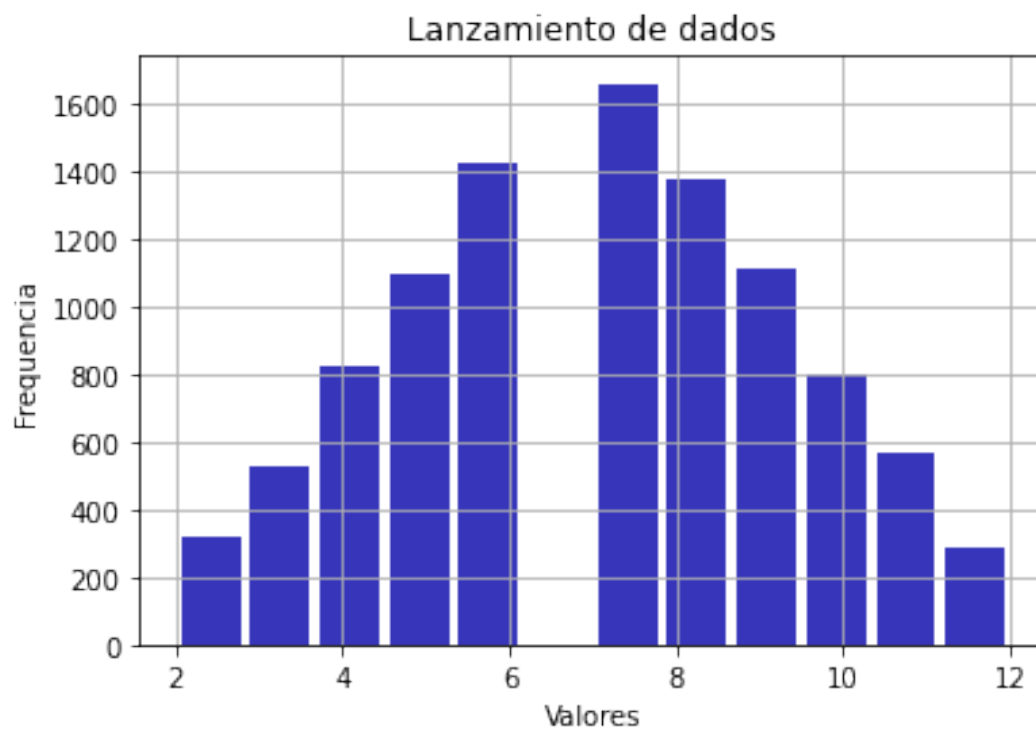
if j == 12:
    aux0 = aux0 + 1

resultado = (aux,aux1, aux2, aux3, aux4, aux5, aux6, aux7, aux8, aux9,
aux0)
cadena =(2,3,4,5,6,7,8,9,10,11,12)
print (resultado)
print (cadena)

n, bins, patches = plt.hist(x=array, bins=12, color='#0504aa',
                             alpha=0.8, rwidth=0.85)
plt.grid(alpha=1)
plt.xlabel('Valores')
plt.ylabel('Frecuencia')
plt.title('Lanzamiento de dados')
print("Realizado por: William Chabla")

(318, 524, 827, 1096, 1424, 1661, 1378, 1113, 803, 571, 285)
(2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12)
Realizado por: William Chabla

```



Con 10000 Datos