

In [1]:

```
import numpy as np
np.random.seed(0) #随机数生成器设置一组随机数种子，以确保每次程序执行时，都可以生成同样的随机数组

x1 = np.random.randint(10, size=6) #一维数组
x2 = np.random.randint(10, size=(3, 4)) #二维数组
x3 = np.random.randint(10, size = (3, 4, 5)) #三维数组
```

In [2]:

```
print("x3 ndim:", x3.ndim) #ndim 数组的维度
print("x3 shape:", x3.shape) #shape 数组的每个维度的大小
print("x3.size:", x3.size) #size 数组的总大小
```

```
x3 ndim: 3
x3 shape: (3, 4, 5)
x3.size: 60
```

In [3]:

```
#数组的数据类型 dtype
print("x3 dtype:", x3.dtype)
```

```
x3 dtype: int32
```

In [4]:

```
#itemsize 每个数组元素字节的大小
print("itemsize:", x3.itemsize, "bytes")
#表示数组总字节大小的属性值nbytes
print("nbytes:", x3.nbytes, "bytes")
```

```
itemsize: 4 bytes
nbytes: 240 bytes
```

In []: