总体上很顺利，基本上都能完成任务

问题：

- 向量外积的计算我根据数学定义使用了循环算法，不知道这样是否算“broadcasting”

In [70]:
```
a=np.array([1,2,3,4])
b=np.array([4,5,6])
#np.outer
print(np.outer(a,b))
#broadcasting
def Outer(a,b):
    a0=np.zeros((a.shape[0],b.shape[0]))
    for i in range(a.shape[0]):
        for j in range(b.shape[0]):
            a0[i,j]=a[i]*b[j]
    return a0
print(Outer(a,b))
# I wonder whether this method is broadcasting.
```

```
[[ 4  5  6]
 [ 8 10 12]
 [12 15 18]
 [16 20 24]]
[[ 4.  5.  6.]
 [ 8. 10. 12.]
 [12. 15. 18.]
 [16. 20. 24.]]
```

- 含横向量（行数为一）的爱因斯坦求和会报错“einstein sum subscripts string contains too many subscripts for operand 0”，我使用了 np.dot()函数代替，**请问这里如果想使用 einsun 函数该如何解决？**

:
```
np.einsum('ij,jk->ik',a,W)
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
Input In [10], in <cell line: 1>()
----> 1 np.einsum('ij,jk->ik',a,W)

File <__array_function__ internals>:5, in einsum(*args, **kwargs)

File ~\anaconda3\lib\site-packages\numpy\core\einsumfunc.py:1359, in einsum(out, optimize, *operands, **kwargs)
   1357     if specified_out:
   1358         kwargs['out'] = out
-> 1359     return c_einsum(*operands, **kwargs)
   1361 # Check the kwargs to avoid a more cryptic error later, without having to
   1362 # repeat default values here
   1363 valid_einsum_kwargs = ['dtype', 'order', 'casting']

ValueError: einstein sum subscripts string contains too many subscripts for operand 0
```