In [1]:

```python
import numpy as np
```

In [64]:

```python
polyB = [1,2,-3,0,0,4,0,-1]
polyA = [0,1,1]
```

rotate window 180 degree

In [65]:

```python
polyB.reverse()
```

padding polyA

In [66]:

```python
for i in range(1,len(polyB)):
    polyA.insert(0,0);

for i in range(1,len(polyB)):
    polyA.append(0);
```

In [67]:

```python
polyA
```

Out[67]:

```
[0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 0, 0, 0, 0, 0, 0, 0]
```

In [68]:

```python
ans=[0]*(len(polyA)-len(polyB)+1)

for i in range(0,len(polyA)-len(polyB)+1):
    for j in range(len(polyB)):
        ans[i]+=polyA[i+j]*polyB[j]
```

In [69]:

```python
ans
```

Out[69]:

```
[0, 1, 3, -1, -3, 0, 4, 4, -1, -1]
```

In [ ]:

```python

```

In [ ]:

```
1
```

In [ ]:

```
1
```

In [ ]:

```
1
```