Quiz 6

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1.

```
d = 0
for ele in f:
    d ^= s[ele + n - l]
```

計算當前的 d，參照將以上的 qsudo code

$$d = s_N \oplus c_1 s_{N-1} \oplus c_2 s_{N-2} \oplus \cdots \oplus c_L s_{N-L}$$

```
if l <= n/2:
    temp = f.copy()
    f = set([b - a + ele for ele in f]) ^ g
    l = n + 1 - l
    g = temp
    a = b
    b = n - l + 1
else:
    f ^= set([a - b + ele for ele in g])
    b += 1
```

這部分是在做輾轉相除

```python
def print_poly(polynomial):
    result = ''
    lis = sorted(polynomial, reverse=True)
    for i in lis:
        if i == 0:
            result += '1'
        else:
            result += 'x^%s' % str(i)

        if i != lis[-1]:
            result += ' + '

    return result
```

輸出生成多項式。

2. 此數列為費波那契數列$a_{n+2} = a_{n+1} + a_n$, $a_0 = 0, a_1 = 1$