6.3

In [66]:
```
import bitarray
P1 = 'Yes'
oIV = '31323334353637383930313233343536'
nIV = '31323334353637383930313233343537'
P2 = '?'
```

In [76]:
```
ba = bitarray.bitarray()
ba.frombytes(P1.encode('utf-8'))
P1_binary = list(ba)

oIV_binary = [True if b == '1' else False for b in bin(int(oIV, 16))]
nIV_binary = [True if b == '1' else False for b in bin(int(nIV, 16))]


for f in range(int((len(oIV_binary) - len(P1_binary))/8)):
    P1_binary += [0,0,0,0,1,1,0,1]

X = [oIV_binary[c] != P1_binary[c] for c in range(len(oIV_binary))]
X_str = ''
for x in X:
    if x == True:
        X_str += '1'
    else:
        X_str += '0'
X_hex = hex(int(X_str, 2))[2:]
print("X HEX: ",X_hex)

P2_binary = [X[c] != nIV_binary[c] for c in range(len(nIV_binary))]

P2_binary_str = ''
for p in P2_binary:
    if p == True:
        P2_binary_str += '1'
    else:
        P2_binary_str += '0'

P2_hex = hex(int(P2_binary_str, 2))[2:]
print("P2 HEX: ",P2_hex)
P2 = bytearray.fromhex(P2_hex).decode()
P2
```

```
X HEX:  68574039383b3a35343d3c3f3e39383b
P2 HEX:  5965730d0d0d0d0d0d0d0d0d0d0d0d0c
```

Out[76]:
```
'Yes\r\r\r\r\r\r\r\r\r\r\r\r\x0c'
```

In [ ]:
```
```