

배열

Fish	And	Chips
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비트

0 0 1	0 1 0	1 0 0
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경우의 수

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Fish		
------	--	--

Fish	And	
------	-----	--

Fish		Chips
------	--	-------

	And	Chips
--	-----	-------

Fish	And	Chips
------	-----	-------

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1 << y):
            print(arr[y], end=' ')
        print()
```



Fish			And			Chips		
0	0	1	0	1	0	1	0	0

x = 0

y = 0

$1 \ll 0 = 1$

1을 왼쪽으로 0번 shift : 1

비트 and 연산

x	0	0	0
$1 \ll y$	0	0	1
result	0	0	0

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1<<y):
            print(arr[y], end=' ')
        print()
```



Fish			And			Chips		
0	0	1	0	1	0	1	0	0

x = 0

y = 1

$1 << 1 = 2$

1을 왼쪽으로 1번 shift : 10

비트 and 연산

x	0	0	0
$1 << y$	0	1	0
result	0	0	0

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1<<y):
            print(arr[y], end=' ')
        print()
```



Fish			And			Chips		
0	0	1	0	1	0	1	0	0

x = 0

y = 2

$1 \ll 2 = 4$

1을 왼쪽으로 2번 shift : 100

비트 and 연산

x	0	0	0
$1 \ll y$	1	0	0
result	0	0	0

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1<<y):
            print(arr[y], end=' ')
    print()
```

>>> Fish

Fish			And			Chips		
0	0	1	0	1	0	1	0	0



x = 1

y = 0

$1 \ll 0 = 1$

비트 and 연산

x	0	0	1
$1 \ll y$	0	0	1
result	0	0	1

arr의 y 번째 'Fish' 출력

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1 << y):
            print(arr[y], end=' ')
    print()
```

>>> Fish

Fish			And			Chips		
0	0	1	0	1	0	1	0	0



x = 1

y = 1

1 << 1 = 2

비트 and 연산

x	0	0	1
1 << y	0	1	0
result	0	0	0

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1<<y):
            print(arr[y], end=' ')
    print()
```

>>> Fish

Fish			And			Chips		
0	0	1	0	1	0	1	0	0



x = 1

y = 2

1 << 2 = 4

비트 and 연산

x	0	0	1
1<<y	1	0	0
result	0	0	0

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1 << y):
            print(arr[y], end=' ')
        print()
```



Fish			And			Chips		
0	0	1	0	1	0	1	0	0

x = 2

y = 0

$1 \ll 0 = 1$

비트 and 연산

x	0	1	0
$1 \ll y$	0	0	1
result	0	0	0

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N):   # range(3)
        if x & (1<<y):
            print(arr[y], end=' ')
    print()
```

>>> And

Fish			And			Chips		
0	0	1	0	1	0	1	0	0



x = 2

y = 1

$1 \ll 1 = 2$

비트 and 연산

x	0	1	0
$1 \ll y$	0	1	0
result	0	1	0

arr의 y 번째 'And' 출력

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1<<y):
            print(arr[y], end=' ')
    print()
```

>>> And

Fish			And			Chips		
0	0	1	0	1	0	1	0	0



x = 2

y = 2

1 << 2 = 4

비트 and 연산

x	0	1	0
1<<y	1	0	0
result	0	0	0

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1<<y):
            print(arr[y], end=' ')
    print()
```

>>> Fish

Fish			And			Chips		
0	0	1	0	1	0	1	0	0



x = 3

y = 0

$1 \ll 0 = 1$

비트 and 연산

x	0	1	1
$1 \ll y$	0	0	1
result	0	0	1

arr의 y 번째 'Fish' 출력

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1<<y):
            print(arr[y], end=' ')
    print()
```

>>> Fish And

Fish			And			Chips		
0	0	1	0	1	0	1	0	0



x = 3

y = 1

$1 \ll 1 = 2$

비트 and 연산

x	0	1	1
$1 \ll y$	0	1	0
result	0	1	0

arr의 y 번째 'And' 출력

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1<<y):
            print(arr[y], end=' ')
    print()
```

>>> Fish And

Fish			And			Chips		
0	0	1	0	1	0	1	0	0



x = 3

y = 2

$1 \ll 2 = 4$

비트 and 연산

x	0	1	1
$1 \ll y$	1	0	0
result	0	0	0

위 작업을 반복하여 최종 $x = 70$ 이 되면

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1<<y):
            print(arr[y], end=' ')
    print()
```

>>> Fish

Fish			And			Chips		
0	0	1	0	1	0	1	0	0



x = 7

y = 0

$1 \ll 0 = 1$

비트 and 연산

x	1	1	1
$1 \ll y$	0	0	1
result	0	0	1

arr의 y 번째 'Fish' 출력

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1<<y):
            print(arr[y], end=' ')
    print()
```

>>> Fish And

Fish			And			Chips		
0	0	1	0	1	0	1	0	0



x = 7

y = 1

$1 \ll 1 = 2$

비트 and 연산

x	1	1	1
$1 \ll y$	0	1	0
result	0	1	0

arr의 y 번째 'And' 출력

코드

```
arr = ['Fish', 'And', 'Chips']
N = len(arr)

for x in range(1 << N): # range(8)
    for y in range(N): # range(3)
        if x & (1<<y):
            print(arr[y], end=' ')
        print()
```

>>> Fish And Chips

Fish			And			Chips		
0	0	1	0	1	0	1	0	0



x = 7

y = 2

$1 \ll 2 = 4$

비트 and 연산

x	1	1	1
$1 \ll y$	1	0	0
result	1	0	0

arr의 y 번째 'Chips' 출력