List comprehension

```python
l = [7, 2, 14, -5, 0, 9]
```

```python
[num for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]


    [                          ]


    [num for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]


    [7                        ]



    [num for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]

[7, 2                    ]

[num for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]


    [7, 2, 14          ]


    [num for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]
```

```
[7, 2, 14, -5        ]
```

```
[num for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]
```

```
[7, 2, 14, -5, 0    ]
```

```
[num for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]
```

```
[7, 2, 14, -5, 0, 9]
```

```
[num for num in l]
```

```python
l = [7, 2, 14, -5, 0, 9]
```

```python
[7, 2, 14, -5, 0, 9]
```

```python
[num for num in l]
```

Example 2

```python
l = [7, 2, 14, -5, 0, 9]
```

```python
[num+1 for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]


       [                           ]



       [num+1 for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]


[8                    ]



[num+1 for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]



[8, 3           ]



[num+1 for num in l]
```

```python
l = [7, 2, 14, -5, 0, 9]

[8, 3, 15          ]


[num+1 for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]



[8, 3, 15, -4      ]



[num+1 for num in l]
```

```python
l = [7, 2, 14, -5, 0, 9]

[8, 3, 15, -4, 1    ]

[num+1 for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]
```

```
[8, 3, 15, -4, 1, 10]
```

```
[num+1 for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]


[8, 3, 15, -4, 1, 10]


[num for num in l]
```

Example 3

```python
l = [7, 2, 14, -5, 0, 9]
```

```python
[is_prime(num) for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]


        [                    ]


[is_prime(num) for num in l]
```

```python
l = [7, 2, 14, -5, 0, 9]
```

```python
[is_prime(7)                    ]
```

```python
[is_prime(num) for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]
```

```
[True                    ]
```

```
[is_prime(num) for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]
```

```
[True, True                    ]
```

```
[is_prime(num) for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]
```

```
[True, True, False                    ]
```

```
[is_prime(num) for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]
```
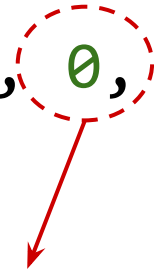
```
[True, True, False, False          ]
```

```
[is_prime(num) for num in l]
```
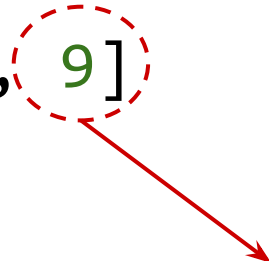
```
l = [7, 2, 14, -5, 0, 9]
```

```
[True, True, False, False, False        ]
```

```
[is_prime(num) for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]
```

```
[True, True, False, False, False, False]
```

```
[is_prime(num) for num in l]
```

```
l = [7, 2, 14, -5, 0, 9]
```

[True, True, False, False, False, False]

```
[is_prime(num) for num in l]
```

Example 4

```python
l = [7, 2, 14, -5, 0, 9]
```

```python
[num+1 for num in l if num % 2 == 0]
```
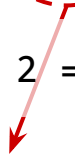
```
l = [7, 2, 14, -5, 0, 9]
```

```
[                      ]
```

```
[num+1 for num in l if num % 2 == 0]
```

l = [7, 2, 14, -5, 0, 9]

7 % 2 == 0

[   ]

[num+1 for num in l if num % 2 == 0]

l = [7, 2, 14, -5, 0, 9]

2 % 2 == 0

[3   ]

[num+1 for num in l if num % 2 == 0]

l = [7, 2, 14, -5, 0, 9]

14 % 2 == 0

[3, 15]

[num+1 for num in l if num % 2 == 0]

```
l = [7, 2, 14, -5, 0, 9]
```

-5 % 2 == 0

```
[   3, 15        ]
```

```
[num+1 for num in l if num % 2 == 0]
```

```
l = [7, 2, 14, -5, 0, 9]
```

0 % 2 == 0

```
[   3, 15,    1    ]
```

```
[num+1 for num in l if num % 2 == 0]
```

l = [7, 2, 14, -5, 0, 9]

9 % 2 == 0

[3, 15,   1   ]

[num+1 for num in l if num % 2 == 0]

```
l = [7, 2, 14, -5, 0, 9]


           [3, 15, 1]


[num+1 for num in l if num % 2 == 0]
```