```python
In [1]: #logical operators (and,or,not)
        age = int(input('enter your age:'))
        if age>=20 and age<40:#true and true =true
            print('you are 20 years old and below 40')
```

```
enter your age:20
you are 20 years old and below 40
```

```python
In [2]: #let say we enter 40
        age = int(input('enter your age:'))
        if age>=20 and age<40:#true and false = false
            print('you are 20 years old and below 40')
```

```
enter your age:40
```

```python
In [3]: #as we see nothing showed up way cuz the statement is false
        age = int(input('enter your age:'))
        if age>=20 and age<40:#true and false = false
            print('you are 20 years old and below 40')
        else:
            print('you are 40 years old or above')
```

```
enter your age:40
you are 40 years old or above
```

```python
In [1]: #now if we enter 20
        age = int(input('enter your age:'))
        if age>=20 or age<40:#true or true = true
            print('you are 20 years old and below 40')
        else:
            print('you are 40 years old or above')
```

```
enter your age:20
you are 20 years old and below 40
```

```python
In [2]: #okay good but if we enter 40
        age = int(input('enter your age:'))
        if age>=20 or age<40:#true or false = true
            print('you are 20 years old and below 40')
        else:
            print('you are 40 years old or above')
```

```
enter your age:40
you are 20 years old and below 40
```

```python
In [3]: #but why we enter 40 cuz true or false =true we must use and not or
        age = int(input('enter your age:'))
        if age>=20 and age<40:#true and false = false
            print('you are 20 years old and below 40')
        else:
            print('you are 40 years old or above')
```

```
enter your age:40
you are 40 years old or above
```

```python
In [4]: # not operator
        age = int(input('enter your age:'))
        if not age==20:# not true=false
            print('you are below 20')
```

```
enter your age:20
```

```python
In [5]: #hmmm why cuz not true=false now if we enter 18
        age = int(input('enter your age:'))
        if not age==20:# not false=true
            print('you are below 20')
```

```
enter your age:18
you are below 20
```

```python
In [8]: #we can use the logical operators more than once
        age = int(input('enter you age:'))
        if age ==20 or age ==21 or age==22:#true or false or false =true
            print('you are allowed')
```

```
enter you age:20
you are allowed
```

```python
In [9]: #another example for and
        age = int(input('enter your age:'))
        if age>=20 and age<40 and age>18:#true and true and true = true
            print('you are allowed')
```

```
enter your age:25
you are allowed
```

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```python
In [11]: #if we enter 40 or 18 one false will let the statement false
         age = int(input('enter your age:'))
         if age>=20 and age<40 and age>18:#true and false and true = false
             print('you are allowed')
         else:
             print('you are not allowed')
```

enter your age:40
you are not allowed

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