CONDITIONAL EXECUTION
Notes

• How to work with course materials
• Timetable
Comparison operators

<   less than
<=  less than or equal to
==  equal to
>=  greater than or equal to
>   greater than
!=  not equal

Remember:  = is used for assignment
Logical operators

and

or

not

if $x > 0$ and $x < 10$:
    print('x is greater than 0 and less than 10')

if $n \% 2 == 0$ or $n \% 3 == 0$:
    print('n is divisible by 2 or by 3')

if not $(n \% 2 == 0)$:
    print('n is odd')
One-way decisions

if question:
    statement
    statement
    statement

if x > 0:
    print('Positive')
    print('Greater than 0')
Two-way decisions

```python
if question:
    statement
else:
    statement
```

```python
if x > 0:
    print('Positive')
else:
    print('Negative or zero')
```
Multi-way decisions

```python
if question:
    statement
elif question:
    statement
else:
    statement
```

```python
if x > 0:
    print('Positive')
elif x < 0:
    print('Negative')
else:
    print('Zero')
```
Indentation

• **Increase indent** after an if statement (do not forget about :) )
• **Maintain indent** to indicate the scope of the block (which lines are affected by the if)
• **Reduce indent** back to the level of the if statement to indicate the end of the block
• Usually 4 spaces

```python
if x > 0:
    print('Positive')
    print('Greater than 0')
print('The end')
```
Nested decisions

```python
if x == y:
    print('x and y are equal')
else:
    if x < y:
        print('x is less than y')
    else:
        print('x is greater than y')
```
Try-except

```python
try :  
    statement  
    statement
except :  
    statement  
    statement
```

```python
try :  
    number = int(string)
except :  
    number = -1
```
Reserved words

if
    and
    or
    not
else
elif
try
except
Each value has type

```python
>>> type(400)
<type 'int'>

>>> type(2.5)
<type 'float'>

>>> type(True)
<type 'bool'>

>>> type('True')
<type 'str'>
```
Review of homework

• H2.2. Shoe size
• H2.3. Power line
• H3.2. Tax-free income