

## Making Decisions in Python

if Commands

Part 2 -

Compound Conditions

# UNIT 1

`if question:`

Instructions  
when  
"yes"

`else:`

Instructions  
when  
"No"

Fact: An `if` instruction tells the computer to ask a *question*.

Based on the answer to this question, the computer will do a different set of instructions in response.

The "`else`" part of the instruction is optional!

# UNIT 1

Q:

How do I write these *questions*?

A:

You write comparisons with  
***relational operators***

## What are the *relational operators*?

Def: a **relational operator** is a symbol that asks about the relationship between two things.

e.g.:

age == 14

This symbol asks if age and 14 are the same

# UNIT 1

| Relational operator | What is asks   |
|---------------------|--|
| <code>==</code>     | Are they the same?                                   |
| <code>!=</code>     | Are they different?                                  |
| <code>&gt;</code>   | Is the first bigger than the second?                 |
| <code>&lt;</code>   | Is the first smaller than the second?                |
| <code>&gt;=</code>  | Is the first bigger than or the same as the second?  |
| <code>&lt;=</code>  | Is the first smaller than or the same as the second? |

e.g.:

age `!=` 14

This symbol asks if  
age and 14 are  
different

e.g.:

age `<` 14

This symbol asks if  
age is smaller than  
14

Head over to Schoology and  
complete 1. Assignment:  
Using Relational Operators



# UNIT 1

Q:

How do I write more complex  
*questions?*

A:

You can connect basic *questions*  
with **and** and **or**

# UNIT 1

e.g.:

age **!=** 14

e.g.:

classroom **==** 528

e.g.:

age **!=** 14 **and** classroom **==** 528

e.g.:

age **!=** 14 **or** classroom **==** 528



# UNIT 1

Q:

How do these complex *questions*  
work?

age **!=** 14

**or**

classroom **==** 411



yes

Yes



no

age **!=** 14

**and**

classroom **==** 411



yes

# No



no

# UNIT 1

Q:

How do these complex *questions*  
work?

A:

The basic questions “fight” according to the following rules:

- **or**: yes always wins
- **and**: no always wins

# UNIT 1

e.g.:

age == 21

No

e.g.:

classroom == 528

Yes

e.g.:

age == 21 **and** classroom == 528

No

e.g.:

age == 14 **or** classroom == 528

Yes

# UNIT 1

e.g.:

age < 21

**Yes**

e.g.:

classroom == 301

**No**

e.g.:

age < 21 **and** classroom == 301

**No**

e.g.:

age < 14 **or** classroom == 301

**Yes**

# UNIT 1

e.g.:

age **>=** 21

**No**

e.g.:

classroom **==** 301

**No**

e.g.:

age **>=** 21 **and** classroom **==** 301

**No**

e.g.:

age **>=** 21 **or** classroom **==** 301

**No**



Head over to Schoology and  
complete 1. Assignment:  
Compound Questions (and/  
or)

