

Exercise 29: What If



Here is the next script of Python you will enter, which introduces you to the if-statement. Type this in, make it run exactly right, and then we'll see if your practice has paid off.



```
people = 20
 1
                                                                             PREVIOUS
 2
     cats = 30
 3
     dogs = 15
                                                                               4
 5
                                                                              NEXT
 6
     if people < cats:</pre>
 7
         print "Too many cats! The world is doomed!"
                                                                               45
 8
                                                                              HELP
 9
     if people > cats:
10
         print "Not many cats! The world is saved!"
                                                                               Follow
11
12
     if people < dogs:</pre>
         print "The world is drooled on!"
13
14
15
     if people > dogs:
         print "The world is dry!"
16
17
18
19
     dogs += 5
20
21
     if people >= dogs:
22
          print "People are greater than or equal to dogs."
23
24
     if people <= dogs:</pre>
25
          print "People are less than or equal to dogs."
26
27
28
     if people == dogs:
         print "People are dogs."
29
```

What You Should See

```
$ python ex29.py
Too many cats! The world is doomed!
The world is dry!
People are greater than or equal to dogs.
People are less than or equal to dogs.
People are dogs.
```

Study Drills

In this Study Drill, try to guess what you think the if-statement is and what it does. Try to answer these questions in your own words before moving on to the next exercise:

- 1. What do you think the if does to the code under it?
- 2. Why does the code under the if need to be indented four spaces?
- 3. What happens if it isn't indented?
- 4. Can you put other boolean expressions from Exercise 27 in

the if-statement? Try it. 5. What happens if you change the initial values for people, cats, and dogs?

Common Student Questions



Q: What does += mean?

The code (x += 1) is the same as doing (x = x + 1) but involves less typing. You can call this the "increment by" operator. The same goes for [-=] and many other expressions you'll learn later.

Video

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