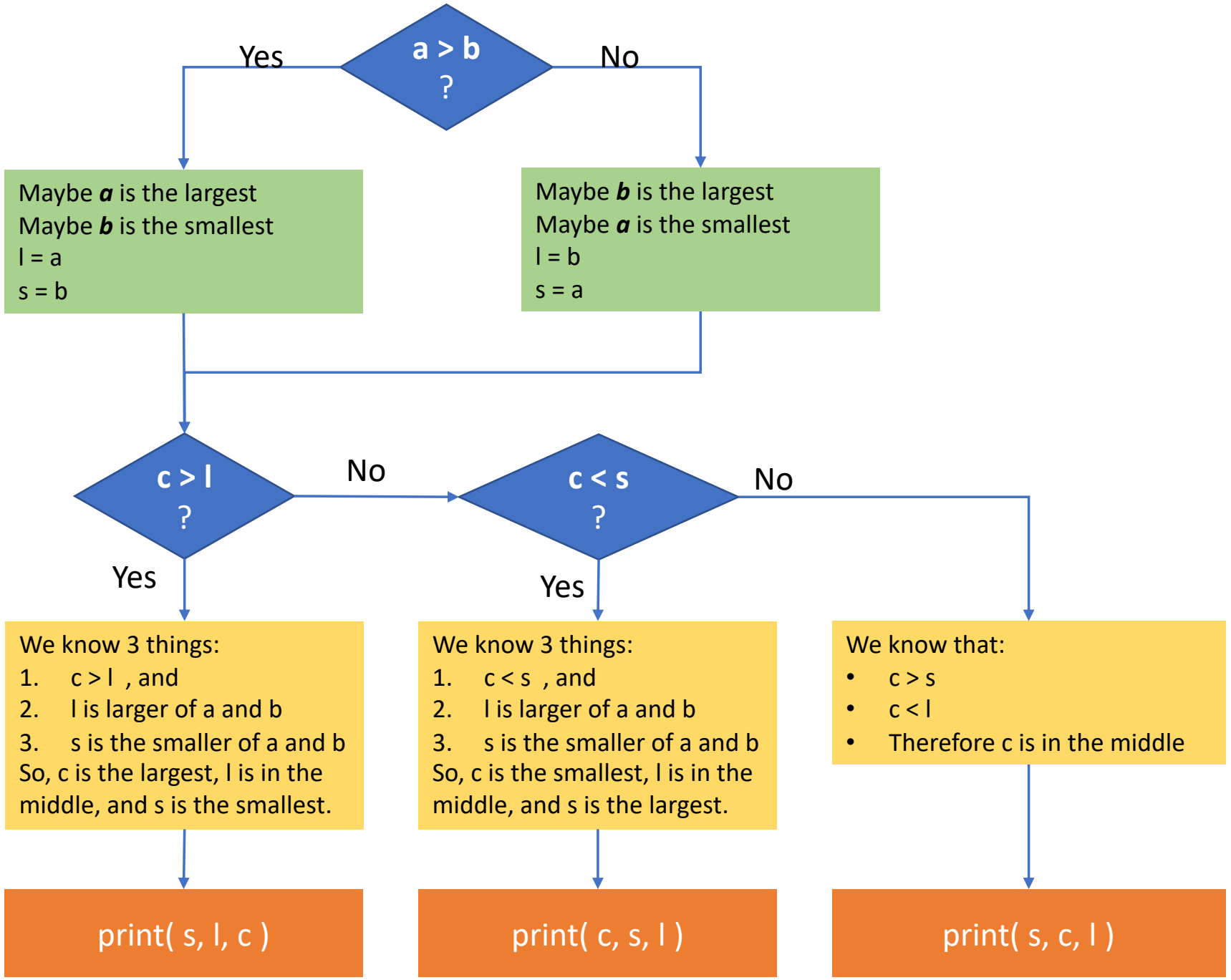
```
a = 120
b = 30
c = 521

s = m = l = 0

if a > b:
    l = a
    s = b
else:
    s = a
    l = b

if c > l:
    m = l
    l = c
elif c < s:
    m = s
    s = c
else:
    m = c

print(s, m, l)
```



Review

If A = 20 and B = 10 are the following True or False?

1. A > 20
2. (A * B) < 200
3. A < B
4. (A > 20) or (B >= 10)
5. (A >= 20) and (B > 10)

Review

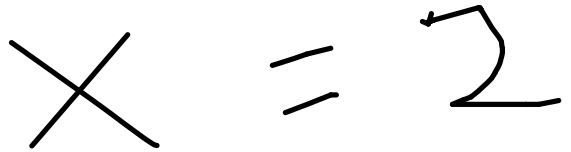
Look at this program:

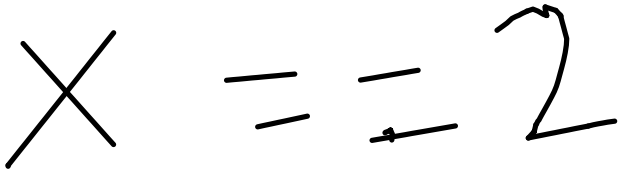
```
x = 5
y = 25
if x >= 10:
        if y > 10:
                print(“both x and y”)
        else:
                print(“only x”)
elif y >= 20:
        if x > 20:
                print(“both x and y are big”)
        else:
                print(“only y”)
else:
        print(“Neither x nor y”)
```

Q1. What is the output of this program?
Q2. What happens if we change X to 20
Q3. What happens if we change both X and Y to 5?

Checking equality

- X = 20, Y=30. Is X equal to Y?
  - This is written in Python code as:
    - X == Y
    - Yes there are 2 equal to signs.
    - And it is a question with two possible answers - True and False





- X = “b30”. Is X equal to “b30”?
  - Written as X == “b30”

- Inequality
  - Written as !=
  - Example 30 != 31

Secret Hello Program

Write a program to take a string as input.

- If the input string is your own name, it should print a secret hello message –
  “Hello dear <your-name>”
- If not, then it should just print -
  “Hi..”

To take input, use the input function like so:

```
name = input(“Enter your name: ”)
```

Numbers are of different types

Integers and Fractions (Floating point)

- X = 12
- Y = 12
  - X == Y is True

- X = 0.99999999999999999
- Y = 1.0
  - X == Y is surprise surprise.. True

Integer Division vs Floating point division

12 // 5 is 2
12 / 5 is 2.4

So 12//5 !=

Report your grade!!

- Write a program to report the grade of a student given his/her marks.
- If marks are between 0 – 40 => print F
- If marks are between 41-60 => print D
- If marks are between 61-80 => print C
- If marks are between 81-90 => print B
- If marks are between 91-99 => print A
- If marks are exactly 100 => print A+

- To take the marks as input use this line of code:

```
marks = int( input(“Enter your marks: ”) )
```

Conversions between types

- We have see three types so far:
  - str
  - int
  - float

- int and float can be converted to each other.
  - int(12.3) is 12
  - float(12) is 12.0

- Both int and float can be converted to strings
  - str(12.33) is “12.33”

- Strings with just numbers in them can also be converted to float or int
  - int(“12”) is 12
  - Int(“12rs”) will cause ERROR

Convert Fahrenheit temperature to Celsius

- Temperature measures how hot it is.
- There are 2 popular units of temperature – F and C
  - For body temperature (e.g. fever) you measure it with F
  - For the heat outside – weather – generally C is used.
- You can convert a temperature given in C to F using this formula

F = (9/5) * C + 32

Write a program to take the celsius temperature as input and print the Fahrenheit temperature as output

Note: the temperature can be a fraction too (like 45.5)