

comp1511 week 02

admin

- questions?

agenda for today

- operators
- data types and arithmetic
- using flow charts (leap year example)
- programming exercise (scanf, if and else)

operators in C

- what are the 3 types of operators?
- what are some examples of each?

types of operators

arithmetic + - * / %

logic && || !

comparison < > <= >= != ==

- what's the difference between / and %?

arithmetic

1. $(7 / 2)$

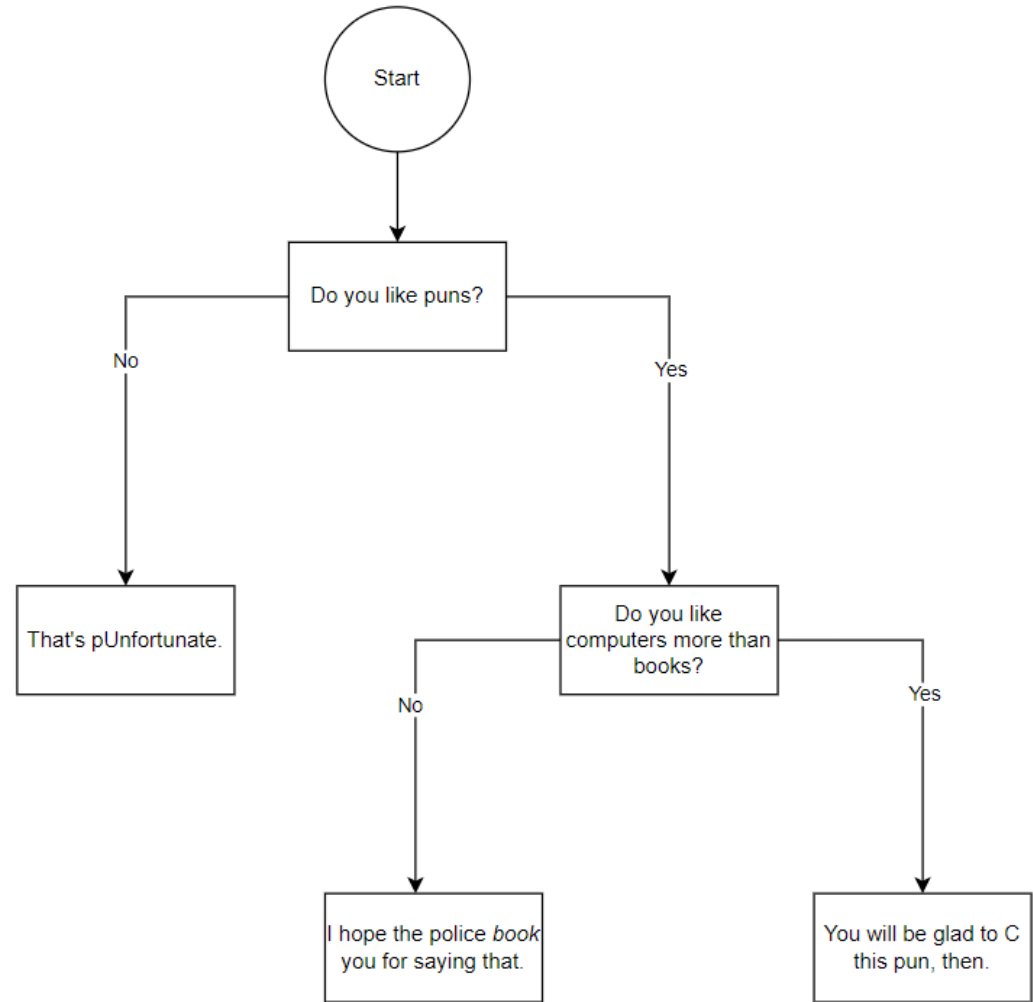
2. $(3.0 / 2) + 1$

3. $'a' + 5$

4. $'F' - 'A' + 'a'$

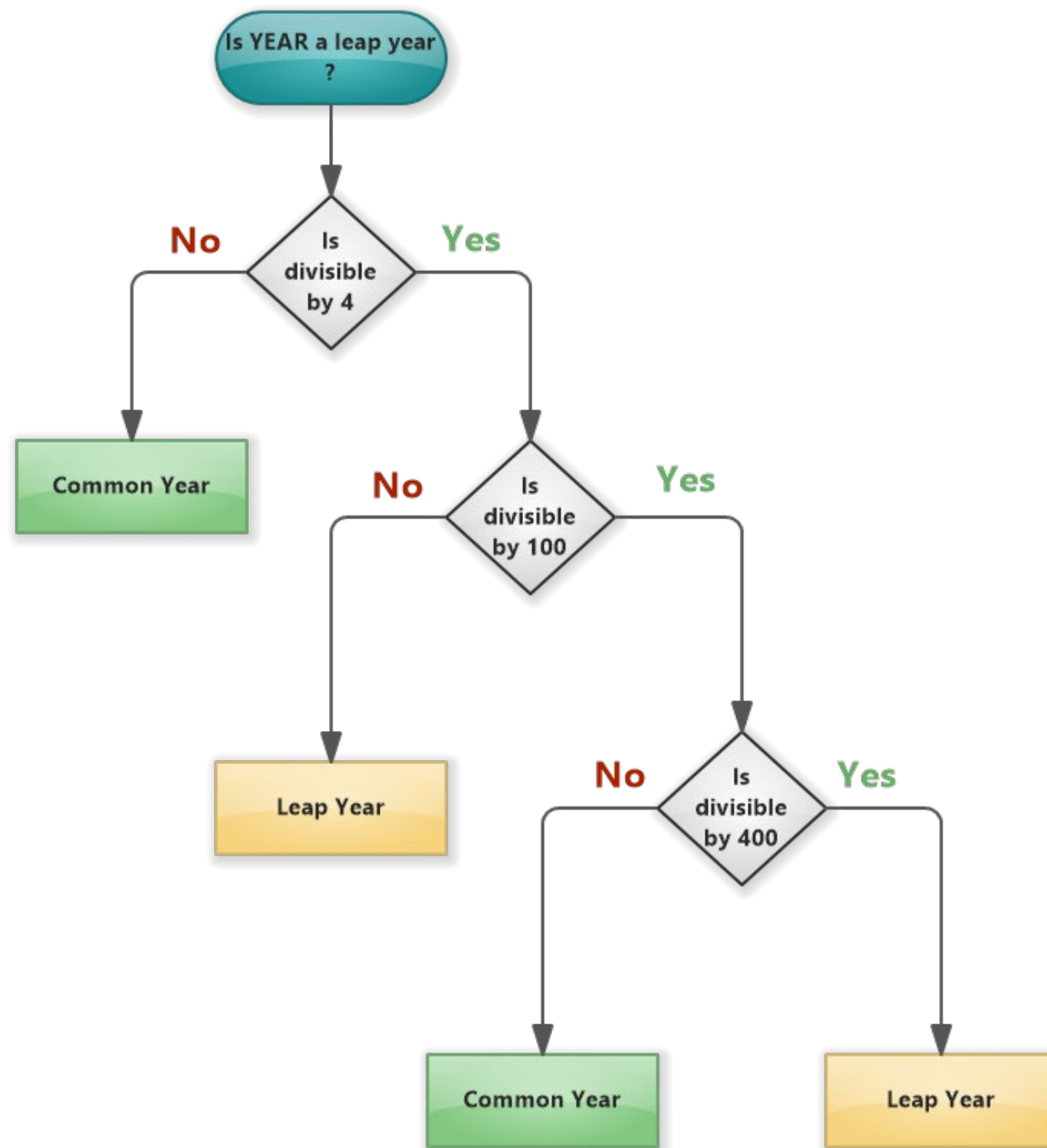
diagramming

- how to draw a flow chart?



leap years

- three rules of a leap year:
 - years divisible by 4 are leap years. (e.g. 1904 was a leap year)
 - except, years divisible by 100 are not leap years. (e.g 1900 was NOT a leap year)
 - except, years divisible by 400 are always leap years. (e.g. 2000 was a leap year)



what is pseudocode?

```
// C style pseudocode example.  
// Prints out "Hurrah!" if the entered number is 5  
  
int n = 0  
print "Enter a number"  
scan a number into n  
if (n == 5) {  
    print "Hurrah!"  
}
```

programming exercise!

- in this activity, you'll be writing the following program:

- Scan in two integers (`a` and `b`).
- If the first integer is less than the second, print out a short error message.
- If the second integer is 0, print out a different short error message.
- If the first integer is larger than the second, prints `a / b` and `(a * 1.0) / (b * 1.0)` .

- let's write pseudocode for this!

sample solution

- uploaded to Github :)

any questions?