

# **Tute 2**

**COMP1511 22T3**

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# content

- operators
- types
- planning your code

# operators

In groups: think of all the operators you've seen in C so far

Type of Operator	Operators					
Arithmetic		+	-	*	/	%
Logic			&&		!	
Comparison	<	>	<=	>=	!=	==
Assignment				=		

also bitwise, increment/decrement, shortcut assignment operators but not necessary for 1511

# types

what have we seen so far?

how would you scan a value into these types with  
scanf?

Type	format specifier
int	%d
char	%c
double	%lf
void	N/A

# expressions

"math / conventional" result (if it makes sense)?  
result in C and what type does it have?

- $(7/2)$
- $(3.0 / 2) + 1$
- $'a' + 5$
- $'T' - 'A' + 'a'$

Expression	Math	C	C type
$(7/2)$	3.5	3	integer
$(3.0 / 2) + 1$	2.5	2.5	double
<code>'a' + 5</code>	N/A	<code>'f'</code>	char
<code>'T' - 'A' + 'a'</code>	N/A	<code>'T'</code>	char



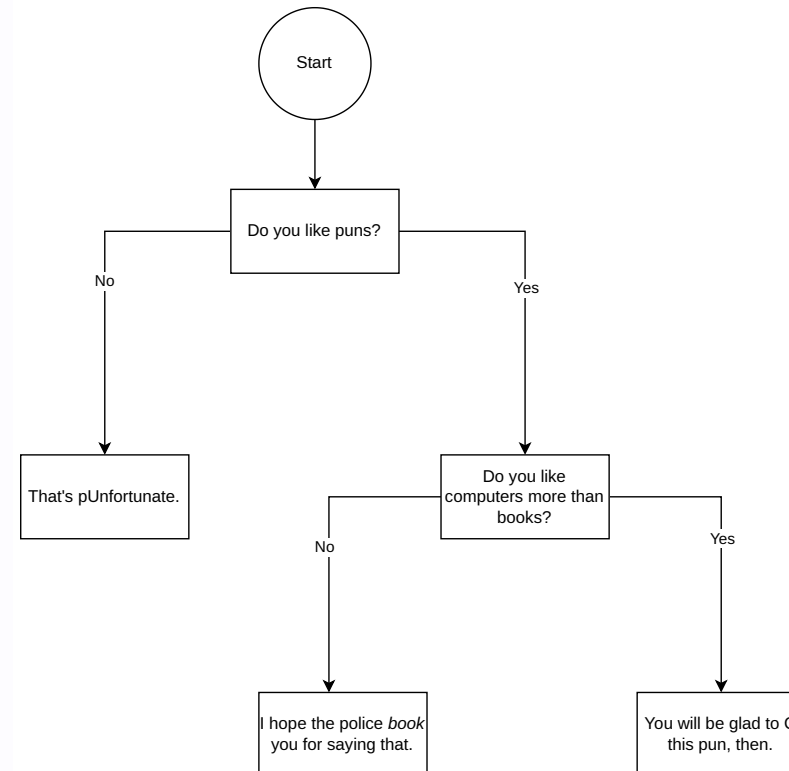
# procedures

allow you to reuse code, e.g

```
void give_compliment(void) {  
    printf("you are doing great!\n")  
    printf("I really mean it")  
}  
  
int main(void) {  
    give_compliment();  
    printf("let me say it again\n")  
    give_compliment();  
}
```

# flow charts

we don't directly assess you on these, but useful



# programming

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

how could we make this nicer with a procedure?  
what would be better names for these variables than  
`a` and `b` ?