**Branching**

If (expression){

…

}

**If-else**

If (expression){

….

}

Else{

…

}

**If-else if-else / nested loop**

Can omit the “{}” in else statement if there is only inner if-else statements ( and no other sequential statement)

**Loops**

For (initialize ; test; update/increment,decrement){

…

}

Initialize

While(test){

…

update

}

Initialize

Do{

…

}while (test);

* Do one time until the end, check the test, if true, continue to do again, if test is false then exit.

For is for counter control loop while, do while is used for sentinel loop. (At least do one time then use do while)

For loop normally starts from 0 (array is easier to manouver)

While loop end by sentinel value -1 is commonly used.

Do-while loop has 1 sentinel value let say 4 to exit the loop menu (1,2,3 are choices while 4 is to exit)

Question 1: Try not cause many cases. Pretest on APAP first time failed due to **format of output** (prompt of \n)

Question 2: Casting conversion take very high precedence. For double data type, scanf must be by %lf

Qn 4: Denominator is int while numerator is float