**CSC201 MODULE 1 ALGORITHMIC COMPLEXITY – ARRANGEMENT EXERCISE**

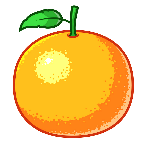
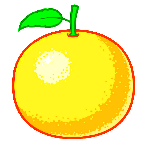
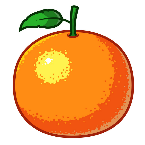
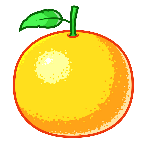
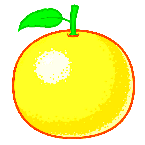
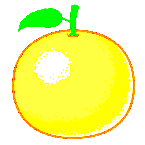
COPY AND PASTE THIS ASSIGNMENT INTO A WORD DOCUMENT. PROVIDE YOUR ANSWER BELOW THE PROBLEM STATEMENT, SAVE AND SUBMIT THE WORD FILE.

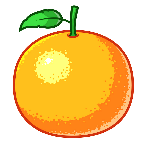
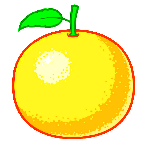
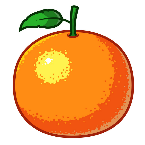
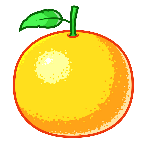
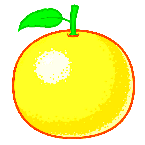
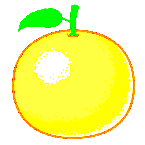
You are given 8 oranges placed in a line and having varying degrees of ripeness, as shown below. (Darker shade is a riper orange.) You are asked to arrange the oranges in the line in order of their ripeness, i.e., going from less ripe to more ripe.

You need to move the oranges to different places in the line to get the right arrangement, by comparing the ripeness. Estimate the number of ripeness comparisons you will need to make, starting from the first orange in the line.

Based on this estimate, for a line of ‘n’ oranges, suggest the number of comparisons you will need to make to get the required arrangement. (Your answer has to be given in terms of ‘n’.)

You can move these oranges to different places in the line as part of the exercise:





For(int I = 0; I <oranges.length; i++)

{

Float leftOrange = oranges[i];

For(int c = 1; c<oranges.length; c++)

{

Float rightOrange = oranges[c];

If(oranges[i].ripeness > oranges[c].ripeness)

{

;

}

}

}