Homework 1

Write a C# program that takes the value of *x* (between 0 and 25) and the type of the operator Δ (* or /) from the user, and then finds the result of the following mathematical formula after 30 terms <u>using nested loops</u>.

$$\frac{\min(3x^2,4!)\,\Delta\,2}{2^2+4^2} - \frac{\min(7x^5,6!)\,\Delta\,7}{4^3+6^3+8^3} + \frac{\min(11x^8,8!)\,\Delta\,12}{6^4+8^4+10^4+12^4} - \frac{\min(15x^{11},10!)\,\Delta\,17}{8^5+10^5+12^5+14^5+16^5} + \frac{\min(19x^{14},12!)\,\Delta\,22}{10^6+12^6+14^6+16^6+18^6+20^6} - \ldots$$

This example formula shows the first 5 terms.

Don't use Math functions.

The symbol Δ must be * or /. The program must control this condition.

The program also must control the value of *x*, where $0 \le x \le 25$.

This homework will be graded by Res.Asst. Göksu TÜYSÜZOĞLU.
You can ask your questions to her from the "**FORUM → Homework 1 - Questions**" part of the *DEUZEM SAKAI* software.

<u>Notes:</u>

1. Your program must work correctly under all conditions. Try to control all possible errors.

2. You should use meaningful variable names, appropriate comments, and good prompting messages.

3. If you are late, your grade will be decreased 10 points for each day.
   After five days, your assignment will not be accepted.

4. If you want, you may write your own "*procedures / functions*".

5. Assignment must be your <u>individual work</u>.
   Cheating is strictly prohibited.
   If any cheating occurs, your assignment will be graded with **zero (0)**.
   A software will be used to automatically detect the similarities between students' source-codes.