Using Dev-C++ to solve all the problems

Lab 1

1. Calculate $n!$, $n \geq 0$.
2. Calculate $P(n) = 1.2.3 \ldots (2n+1)$, $n \geq 0$.
3. Calculate $S(n) = 1 + 2 + 3 + \cdots + (2n+1)$, $n \geq 0$.
4. Calculate $S(n) = 1 - 2 + 3 - 4 + \cdots + (-1)^{n+1} n$, $n > 0$.
5. Calculate $S(n) = 1 + 1.2 + 1.2.3 + \cdots + 1.2.3 \ldots n$, $n > 0$.
6. Calculate $S(n) = 1^2 + 2^2 + 3^2 + \cdots + n^2$, $n > 0$.
7. Calculate $S(n) = 1 + \frac{1}{2} + \frac{1}{3} + \cdots + \frac{1}{n}$, $n > 0$.
8. (*) Calculate $S(n) = 1 + \frac{1}{1+2} + \frac{1}{1+2+3} + \cdots + \frac{1}{1+2+3+\cdots+n}$, $n > 0$.
9. Calculate $P(x, y) = x^y$
10. Calculate $S(n) = 1 + (1+2) + (1+2+3) + \cdots + (1+2+3+\cdots+n)$, $n > 0$.
11. Give an integer n, calculate its absolute value.
12. Given a positive integer n having k digits. Find the maximum digit.
13. Given a positive integer n, count the number of even factors of n.
14. Print out the first digit on a positive integer n having k digits.