Iterative double factorial   P17913_en

Write an iterative function that returns the double factorial @n@!! for a natural n.

Recall that $n!! = n \times (n - 2) \times (n - 4) \times \ldots$. For instance, $9!! = 9 \times 7 \times 5 \times 3 \times 1 = 945$ and $8!! = 8 \times 6 \times 4 \times 2 = 384$. By definition, $0!! = 1!! = 1$.

Interface

C++,C	**int** *double_factorial* (**int** *x*);
Java	**public static int** *doubleFactorial* (**int** *x*);
Python	*double_factorial* (*x*) # returns int
	double_factorial (*x*: **int**) $->$ **int**

Precondition

Assume $0 \leq$ @n@ ≤ 19.

Observation

You only need to submit the required procedure; your main program will be ignored.

Problem information

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