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## Iterative double factorial

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

Recall that  $n!! = n \times (n - 2) \times (n - 4) \times \dots$ . 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	<code>int double_factorial (int x);</code>
Java	<code>public static int doubleFactorial (int x);</code>
Python	<code>double_factorial (x) # returns int</code> <code>double_factorial (x: int) → int</code>

### Precondition

Assume  $0 \leq n \leq 19$ .

### Observation

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

### Problem information

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