

Input-1: 25
Output-1: 10

Input-2: 11
Output-2: 11

Input-3: 15
Output-3: 5

Input-4: 9
Output-4: 6

Input-5: 7
Output-5: 7

OVERFLOW: With reference to the registers used, overflow will occur when the input $X \geq 23$, i.e., 23 is the limit, for which the answer is 23 factorial (as 23 is prime) which cannot be stored in a 64-bit register.

In general, for a 64-bit register, the limiting value for factorial will be 20.

In a 32-bit register, the limiting value will be 12. For inputs greater than 12, overflow occurs.

In a 16-bit register, overflow occurs for values greater than 7. If it is unsigned, the limiting value is 8.

In an 8-bit register, overflow occurs for values greater than 5.