a)
1.if x=2 ans must be 2
2.if x=8 ans must be 4
3.if x=24 ans must be 4
4.if x=30 ans must be 5
5.if x=45 ans must be 6
b)
let suppose new be a variable such that new factorial is the last factorial that is less than 2^64
we can select x as prime numbers greater than new why because new can divide only factorial that is greater than newfactorial here new comes to be 20 (by using caculator) so any prime greater than 20 when taken as x makes overflow and some composite also gives 2*(some biggest prime)
FACTORIAL CALUCULATION HAPPENS AT
overflow happens in 8-bit at 6
overflow happens in 16-bit at 8
overflow happens in 32-bit at 13
overflow happens in 64-bit at 21