**Question 1) Text, letter

Description automatically generated**

Smallest n=15

**Question 2)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **1 Sec.** | **1 min** | **1 hour** | **1 day** | **1 month** | **1 year** | **1 centruy** |
| **lgn** | 2 10^6 | 2 (6\*10^7) | 2 (36\*10^8) | 2 (864\*10^8) | 2 (25920\*10^8) | 2 (315360\*10^8) | 2 (31556736\*10^8) |
|  | 1012 | 36\*(1014)) | 1296\*(1016)) | 746496\*(1016)) | 6718464\*(1018)) | 994519296\*(1018)) | 995827586973696\*(1016)) |
| **n** | 106 | 60\*106 | 3600\*106 | 86400\*106 | 2592000\*106 | 31536000\*106 | 3155673600\*106 |
| **nlogn** | 62746 | 2801417 | 133378058 | 2755147513 | 71870856404 | 797633893349 | 68654697441062 |
| **N2** | 1000 | 7745 | 60000 | 293938 | 1609968 | 5615692 | 56175382 |
| **N3** | 100 | 391 | 1532 | 4420 | 13736 | 31593 | 146677 |
| **2n** | 19 | 25 | 31 | 36 | 41 | 44 | 51 |
| **N!** | 9 | 11 | 12 | 13 | 15 | 16 | 17 |