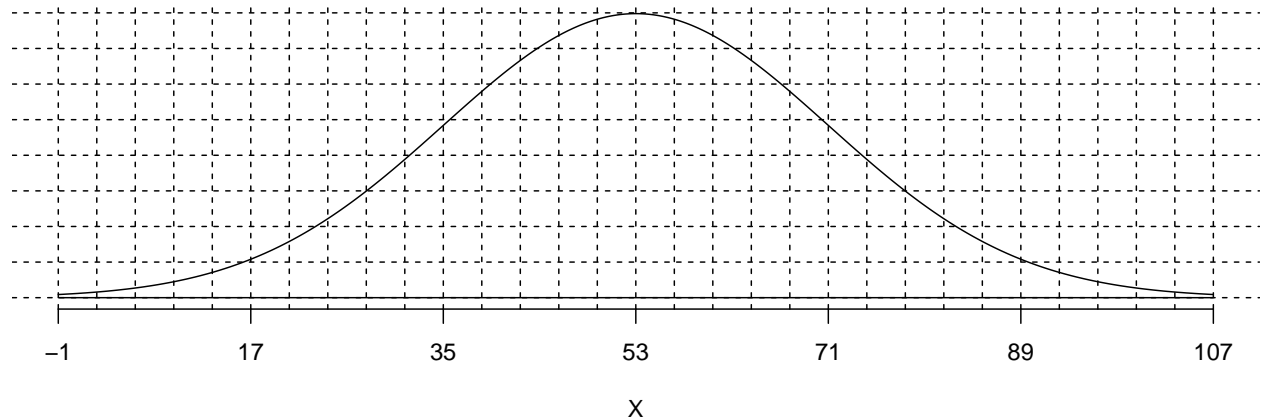# Question

Let X be a normal random variable with mean $\mu = 53$ and standard deviation $\sigma = 18$.

$$X \sim \mathcal{N}(53,\ 18)$$

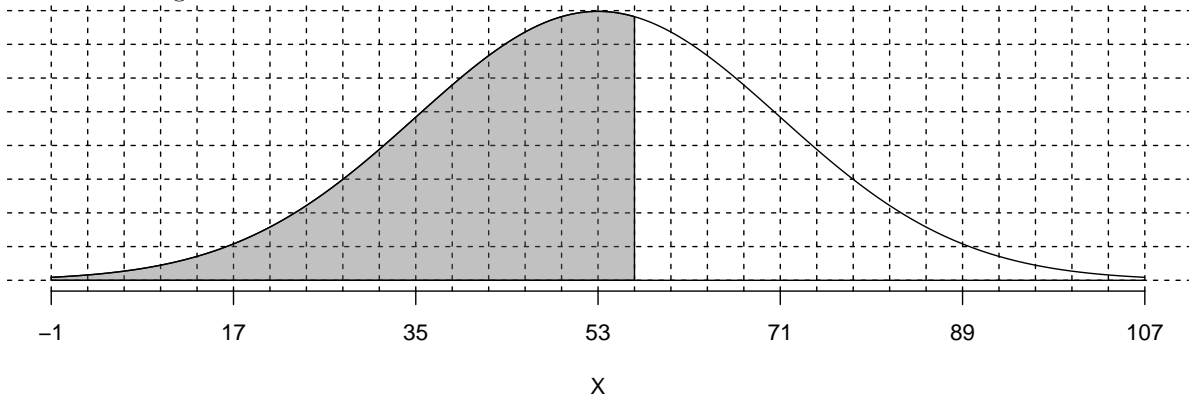The figure below shows the density of random variable X. Each grid square represents 1% of probability.

Answerlist ——— * Estimate $P(X < 56.6)$ by shading and counting. * Determine $P(Z < 56.6)$ by using the z-table.

Solution

Answerlist

- The shaded region is shown below.

  You should count about 58 shaded squares, giving a probability of about 0.58.
- The probability is 0.5793.

Meta-information

extype: string exsolution: yo exname: marbles extol: 0.01