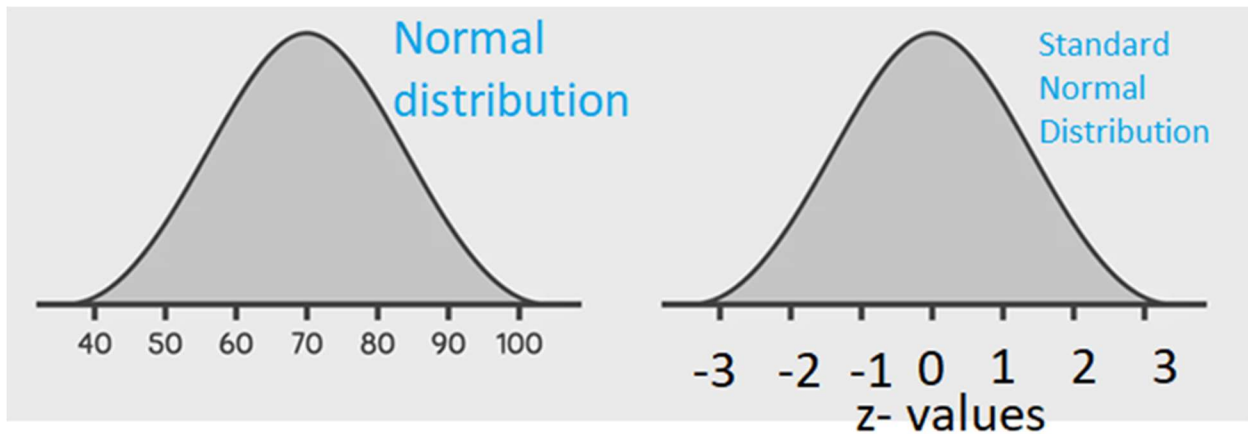
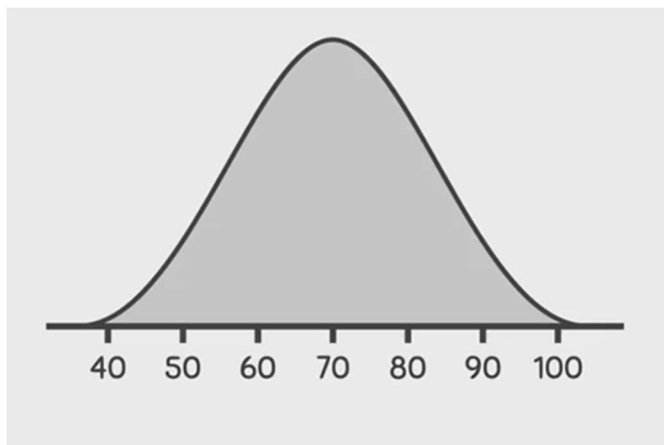


## Assignments on Z score

$$Z = \frac{(\text{observed value} - \text{mean})}{SD}$$



**Q1. For a recent final written statistics exam for a “Data scientist” job selection process, the mean was 70 with a standard deviation of 10. If you scored 76 marks. What is your percentile or (area in the Normal distribution)?.**



Q2. fathers' heights follow the normal curve with a mean of 68.3 inches and a standard deviation of 1.8 inches.

**What percentage of fathers have heights between 67.4 inch and 71.9 inch?**

Q3. If you know that  $-0.1$  corresponds to approximately 46 % and  $1.8$  corresponds to approximately 96.4 % (both percentages are areas under the curve to the left of the value), what percentage of fathers will have heights between 68.1 inc and 71.5 in?

**Ans:-**

**Q4. What is the 30 percentile of the Father's height?**

**Ans:-**

**Q5. What proportion of students are between 5.81 feet & 6.3 feet height. Given Mean=5.5, sd=0.5 feet.**

**Q6. mean height of Gurkhas is 146 cm with Sd of 3 cm . what is the probability of**

**(a)Height having greater than 152 cm.**

**(b)Height between 140 and 150 cm.**

**Q7. Mean demand of an oil is 1000 ltr per month with SD Of 250 ltr.**

**(a)if 1200 ltrs are stocked , what is the satisfaction level?**

**(b)For an assurance of95%.what stock must be kept?**