✅ What is Spread?

Spread means how far the numbers are from each other.

It tells if values are:

- **Close together** (low spread) → data similar
- **Far apart** (high spread) → data very different

🎯 Super Simple Example

d to **Example 1**

Marks of 5 students:

70, 71, 72, 72, 73

All numbers are very close → **small spread**
Everyone scored almost the same.

Example 2

Marks of another 5 students:

20, 40, 60, 80, 100

Numbers are very far from each other → **big spread**
Students scored very differently.

✅ **This difference between numbers = Spread**

✅ What is Skewness?

Skewness tells us **if data is balanced or tilted to one side**.

Think of a distribution curve like a hill:

- **Perfectly balanced hill** → No skew (Symmetrical)
- **Hill tail going to right** → Right-skewed
- **Hill tail going to left** → Left-skewed

✅ Right Skew (Positive Skew)

👉 **Long tail on the right side**
👉 Most values are on the **left**, few big values pull the tail right

Real-life example

Income of people

- Many people earn average salary (₹20k–₹50k)
- Few earn very high salary (₹1L–₹10L)

So the graph looks like this:

```
Most people ←----|----|-------→ Few rich
                 ^ peak left
Right tail →
```

Meaning

- **Mean > Median**
- Data has **big outliers on right side**

✅ Left Skew (Negative Skew)

👉 **Long tail on the left side**
👉 Most values are on the **right**, few small values pull the tail left

Real-life example

Retirement age of people

- Most people retire around **60**
- Few retire early at **40–50**

So graph looks like:

```
Few early retirees ←------|-----|----→ Most near 60
Left tail ←
```

Meaning

- **Mean < Median**
- Data has **small extreme values**