

Measuring Spread

7th Grade

Two data sets can share a mean and be nothing alike.

The mean tells you the centre. Spread tells you how trustworthy that centre is.

FIND THE MEAN

1

Add everything, divide by how many.

FIND EACH DISTANCE FROM IT

2

Ignore the signs — use absolute values.

AVERAGE THOSE DISTANCES

3

That is the mean absolute deviation.

COMPARE

4

A bigger MAD means the data is more spread out.

SAME MEAN, DIFFERENT SPREAD

Set A: 9, 10, 11 → mean 10, MAD 0.67

Set B: 2, 10, 18 → mean 10, MAD 5.33

Range uses only two values, so one outlier distorts it. MAD uses every value.