Key

L36 – Worksheet – Mean, Median, Range

Use the following information to answer Q1:

> Mr. Bayer sampled his Math 20-3 class, asking them the question "On a scale of 1-5, how is your day going?" Their responses were:
>
> 4   3   3   5   4   5   3   3   2

Q1: Complete the table:

Reorganize the data from **least** to **greatest**			
2 3 3 3 3 4 4 5 5			
Determine the **mean**	Determine the **median**	Determine the **mode**	Determine the **range**
$x = 3.\overline{5}$	3	3	5-2 =3

Use the following information to answer Q2:

> Mr. Bayer decides to use his son, Nate, as a random number generator. Nate generates the following numbers:
>
> 8   7   3   10   9   6   5   9   5   3   2   1

Q2: Complete the table:

Reorganize the data from **least** to **greatest**			
1, 2, 3,3, 5,5,6, 7, 8, 9, 9, 10			
Determine the **mean**	Determine the **median**	Determine the **mode** (s)	Determine the **range**
$x = 5.\overline{6}$	5.5	3, 5, 9 **Note:** There can be multiple Modes in a set	10 -1 = 9

From the textbook (Pt 238):

Measured Lifespans of 30 Car Batteries (years)									
Brand X					Brand Y				
5.1	7.3	6.9	4.7	5.0	5.4	6.3	4.8	5.9	5.5
6.2	6.4	5.5	5.7	6.8	4.7	6.0	4.5	6.6	6.0
6.0	4.8	4.1	5.2	8.1	5.0	6.5	5.8	5.4	5.1
6.3	7.5	5.0	5.7	8.2	5.7	6.8	5.6	4.9	6.1
3.3	3.1	4.3	5.9	6.6	4.9	5.7	6.2	7.0	5.8
5.8	6.4	6.1	4.6	5.7	6.8	5.9	5.3	5.6	5.9

Complete the table for **Brand X:**

*Reorganize the data from **least to greatest***

3.1 3.3 4.1 4.3 4.6 4.7 4.8 5 5 5.1 5.2 5.5 5.7 5.7
5.7 5.8 5.9 6 6.1 6.2 6.3 6.4 6.4 6.6 6.8 6.9 7.3 7.5
8.1 8.2

Mean	Median	Mode	Minimum	Maximum	Range
$\bar{x} = 5.74\overline{3}$	5.75	5.7	3.1	8.2	8.2 − 3.1 = 5.1

Complete the table for **Brand Y:**

*Reorganize the data from **least to greatest***

4.5 4.7 4.8 4.9 4.9 5 5.1 5.3 5.4 5.4 5.5 5.6 5.6 5.7 5.7
5.8 5.8 5.9 5.9 5.9 6 6 6.1 6.2 6.3 6.5 6.6 6.8 6.8 7

Mean	Median	Mode	Minimum	Maximum	Range
$\bar{x} = 5.72\overline{3}$	5.75	5.9	4.5	7	7 − 4.5 = 2.5

Which car battery would be the better purchase? Explain.

Both batteries have similar central tendencies.
Brand X has a larger Range.
Brand Y is more consistent. ⟵ Personally, I'd choose Brand Y for this reason.