## Space weather indicators

Sunspots are a sign that the Sun is in a stormy state. Sometimes these storms can affect Earth and cause all kinds of problems such as satellite damage and electrical power outages. They can even harm astronauts working in space.

Scientists use many different kinds of measurements to track this stormy activity. In this exercise, you will learn how to use some of them!


This sunspot is as biq as Earth!

Looking at sequences of numbers can help you identify unusual events that depart from the average trend.
$>$ Every sequence can be defined by its largest, smallest and average values.

Now you try!

## Here's how to do it!

An astronomer counts sunspots for 5 days and gets the following sequence:

$$
149,136,198,152,145
$$

Maximum $=198$
Minimum $=136$
Mean $=(149+136+198+152+145) / 5=156$
Median $=149$

Find the maximum, minimum, mean and median of each sequence.

1) Number of Sunspots

| 241 | 240 | 243 | 229 | 268 | 335 | 342 | 401 | 325 | 290 | 276 | 232 | 214 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

2) Number of Solar Flares

| 5 | 7 | 13 | 8 | 9 | 14 | 9 | 13 | 16 | 6 | 14 | 15 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

3) Aurora Power (measured in billions of watts!)

| 171.2 | 122.2 | 219.4 | 107.9 | 86.2 | 112.4 | 76.2 | 39.8 | 153.9 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

[^0]
[^0]:    More about sunspots: http://image.gsfc.nasa.gov/poetry/educator/Sun1012.html

