



When a solar storm travels through space, it carries part of the Sun's magnetic field with it. The Advanced Composition Explorer (ACE) satellite measures the strength of this field and its polarity (North or South). This polarity information is recorded as a negative (south) or a positive (north) number. Suppose that the solar wind magnetism data (given in magnetic units called nanoTeslas) series looks like this:

-15, +5, -2, -15, -20, -8, +4,+8, +5, +2, +5, -15, +6

- a) What is the range of the measurements?
- b) What is the smallest value recorded?
- c) What is the largest value recorded?
- d) What are the median and mode values recorded?
- e) What is the average (mean) value recorded?

Answer Key

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A) $[-20, +8]$;

B) -20 ; C) $+8$;

D) Median = -2 ; Mode = -15 ;

E) Mean = $-47/11 = -4.3$