Unit 5: Statistics and Probability

SBAC alignment for *Unit 5: Statistics and Probability Activity 1*

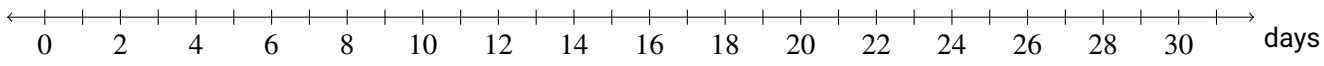
Claim(s)	**Claim 1: Concepts and Procedures** Students can explain and apply mathematical concepts and carry out mathematical procedures with precision and fluency.
Assessment Target(s):	1 J: Summarize and describe distribution.
Content Domain:	Statistics and Probability
Standard(s):	**6.SP.4** Display numerical data in plots on a number line, including dot plots, histograms, and box plots. **6.SP.5** Summarize numerical data sets in relation to their context, such as by:
DOK:	2

Unit 5: Statistics and Probability *Activity 1*

Each month, you have been tracking and counting the number of days that reached a temperature of over 80°F. Here are your results.

Month	Number of days over 80°F
January	17
February	16
March	22
April	26
May	30
June	30
July	31
August	31
September	30
October	31
November	28
December	22

Make a box plot of the data from the table.



SBAC alignment for *Unit 5: Statistics and Probability Activity 2*

Claim(s)	**Claim 3: Communicating Reasoning** (primary claim) Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others. **Claim 1: Concepts and Procedures** (secondary claim) Students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency. **Claim 2: Problem Solving** (secondary claim) Students can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem solving strategies.
Assessment Target(s):	3 F: Base arguments on concrete referents such as objects, drawings, diagrams, and actions. 3 B: Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. 1 J: Summarize and describe distributions. 2 C: Interpret results in the context of a situation.
Content Domain:	Statistics and Probability
Standard(s):	**6.SP.5** Summarize numerical data sets in relation to their context, such as by:
DOK:	3

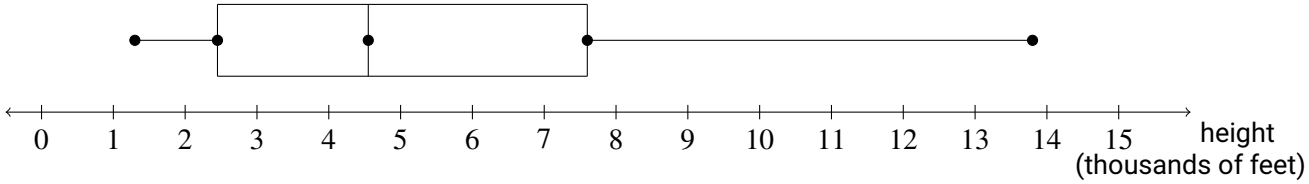
Unit 5: Statistics and Probability *Activity 2*

Mountains on an island dramatically affect the weather that the island experiences. Islands with many tall mountains usually experience a lot of rain or even snow because mountains help clouds to form. On the other hand, flatter islands with small or few mountains are often very windy and dry.

Here is a list of the tallest mountain peaks on each of the main Hawaiian Islands and their heights in thousands of feet.

Island	Peak	Height (thousands of feet)
Hawai‘i	Mauna Kea	13.8
Maui	Haleakalā	10.0
Kaua‘i	Kawaikini	5.2
Moloka‘i	Kamakou	5.0
O‘ahu	Ka‘ala	4.1
Lāna‘i	Lāna‘ihale	3.4
Kaho‘olawe	Pu‘u Moaulanui	1.5
Ni‘ihau	Paniau	1.3

The data is also summarized in the box plot below.



Which measure of center, the mean or the median, would most accurately describe this data? Thoroughly explain your answer.