Grade 6 Smarter Balanced Assessment Item Specifications Fact Sheet

Claim 1 - Target J: Summarize and describe distributions.
Content Domain: Statistics and Probability
<mark>Claim 1 Supporting Cluster</mark>

Standards Assessed in Target J:

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:
a. Reporting the number of observations.
b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Achievement Level Descriptors

Level 1	Students should be able to summarize or display numerical data on a number line, in dot plots, and in histograms; find the median of an odd number of data points; and find the mean when data points are nonnegative integers.
Level 2	Students should be able to calculate mean and median, understand that mean and median can be different or the same, and use the measure of center to summarize data with respect to the context.
Level 3	Students should be able to summarize or display data in box plots and find the interquartile range. They should be able to use the interquartile range along with the angle and measures of center to describe overall patterns in a data distribution, such as symmetry and clusters, and any striking deviations. They should also be able to examine a data set in context and explain the choice of the mean or median, as it relates to the data.
Level 4	Students should be able to relate choice of measures of center and variability to the shape of the data distribution in context of the data; find mean absolute deviation and identify outliers with reference to the context of the situation; and predict effects on the mean and median, given a change in data points.

Construct-Relevant Vocabulary

center, interquartile range, mean, mean absolute deviation, median, outliers, range, shape (pertaining to statistics such as gap, cluster, peak, skew, bell curve, and uniform distribution), spread, variability

Allowable Stimulus Materials

number line diagrams, dot plots, histograms, box plots

Allowable Tools

Calculator