Rule of 4 Link Sheet: MCAS 2008, Mathematics - Grade 7 Question 29: Open-Response

Reporting Category: Data Analysis, Statistics, and Probability

Standard: 7.D.2 - Find, describe, and interpret appropriate measures of central tendency (mean, median, and mode) and spread (range) that represent a set of data. Use these notions to compare different sets of data. *This standard is intentionally the same as standard 8.D.3*.

Verbal Description	Table of Values
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The table shows the state sales tax rates on purchased goods in the year 2005 for the six New England states.	2005 Sales Tax Rates in New England States
	States Sales Tax Rate Connecticut 6% Maine 5% Massachusetts 5% New Hampshire 0% Rhode Island 7% Vermont 6%
Graph the data from the table:	Analysis 1. What was the range of 2005 sales tax rates for the New England states? Show or explain how you got your
	 What was the mean sales tax rate in 2005 for the New England states? Show or explain how you got your answer. What was the median sales tax rate in 2005 for the New England states? Show or explain how you got your answer. A newspaper reporter stated that the mode of the 2005 sales tax rates for the New England states was 5%. Was the reporter correct? Explain your reasoning.
	Extension:5. Massachusetts raised its sales tax to 6.25%. Which was not affected by the increase in MA sales tax: mean, median, mode, range? Show or explain how you got your answer. (Strategy: What is the mean? What is the median? What is the mode? What is the range?)