

This is an closed book test. For this quiz, no books papers or laptops are permitted. Calculators are permitted. You must justify your answers to receive full credit.

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Descriptive statistics. Consider the sample

13 21 23 25 37 55 42 67 71 71 83

- a. [25] Find the sample mean \bar{x} , the sample median \tilde{x} the sample variance s^2 and the sample fourth spread f_s of the given sample.

$\bar{x} =$	$\tilde{x} =$	$s^2 =$	$f_s =$
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- b. [5] Are any of your numbers outliers? Extreme outliers? Explain.