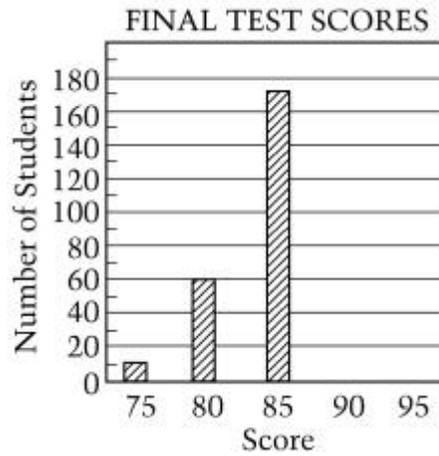


FINAL TEST SCORES	
Score	Number of Students
95	50
90	120
85	170
80	60
75	10

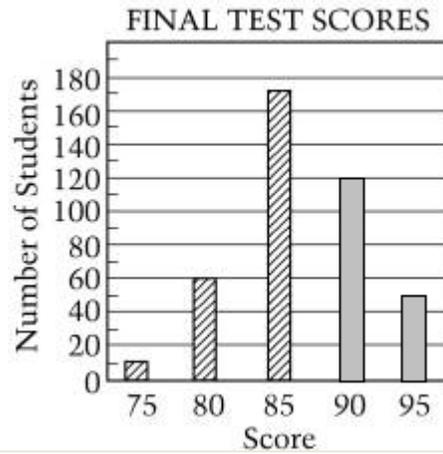
Use the information in the table above to complete the bar graph below.



Scoring Guide

Solution:

Both bars drawn correctly. ("Line" bars are acceptable.)

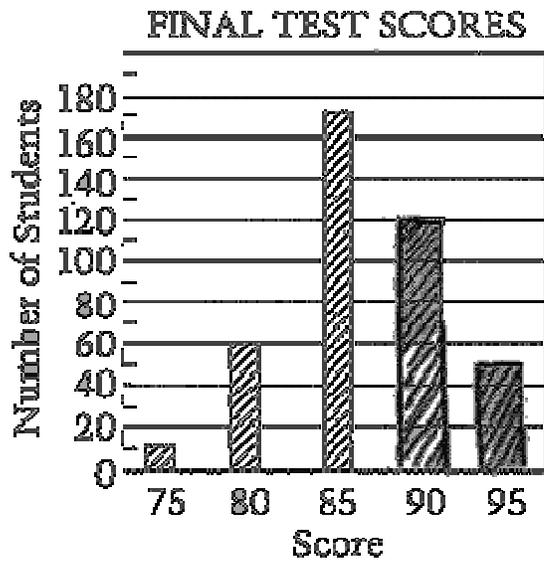


Score & Description
Correct Correct response
Incorrect Incorrect or incomplete response—includes one correct bar only or one correct bar and one incorrect bar

In this question the student needed to read information presented in a table and complete a bar graph representing the given information. The student was first required to select the appropriate values from the table. Finally, the student needed to determine the correct height for the bars representing scores of 90 and 95 and draw the bars on the graph.

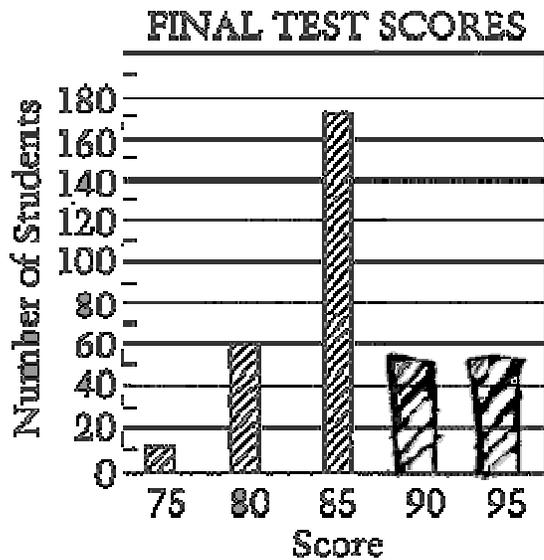
Correct - Student Response

- 1 Use the information in the table above to complete the bar graph below.

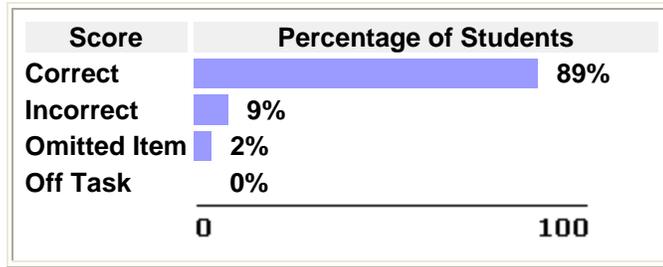


Incorrect - Student Response

- 1 Use the information in the table above to complete the bar graph below.



2003 National Performance Results



Note:

- These results are for public and nonpublic school students.
- Percentages may not add to 100 due to rounding.

Mathematical Content Area: *Data analysis, statistics, and probability*
Mathematical Ability: *Procedural knowledge*

Mathematical Content Area

Data analysis, statistics, and probability

This question measures data analysis, statistics, and probability. This content area focuses on the skills of collecting, organizing, reading, representing, and interpreting data. These are assessed in a variety of contexts to reflect the use of these skills in dealing with information. Students are expected to use statistics and statistical concepts to analyze and communicate interpretations of data. Students are also expected to understand the meaning of basic probability concepts and applications of these concepts in problem-solving and decision-making situations.

Mathematical Ability

Procedural knowledge

This question measures students' procedural knowledge. Students demonstrate procedural knowledge in mathematics when they select and apply appropriate procedures correctly; verify or justify the correctness of a procedure using concrete models or symbolic methods; or extend or modify procedures to deal with factors inherent in problem settings. Procedural knowledge encompasses the abilities to read and produce graphs and tables, execute geometric constructions, and perform noncomputational skills such as rounding and ordering. Procedural knowledge is often reflected in a student's ability to connect an algorithmic process with a given problem situation, to employ that algorithm correctly, and to communicate the results of the algorithm in the context of the problem setting.

	Description	Grade	Type	Difficulty
1	Complete a bar graph using data in table	8th	Short Constructed Response	Easy