

Each of the 6 faces of a certain cube is labeled either R or S. When the cube is tossed, the probability of the cube landing with an R face up is  $\frac{1}{3}$ .

How many faces are labeled R ?

- A) Five
- B) Four
- C) Three
- D) Two
- E) One

## Key

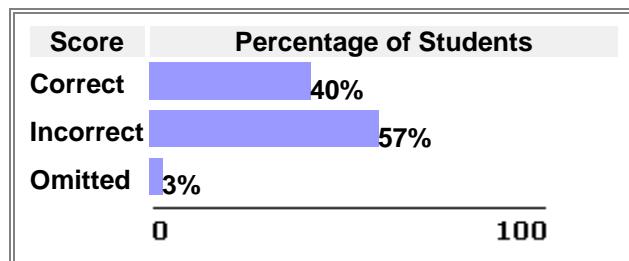
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### 2005 National Performance Results



Note:

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

**Mathematical Content Area:** Data analysis and probability (Sub content classification: )  
**Mathematical Complexity:** Low Complexity

## Mathematical Content Area

### ***Data analysis and probability***

This content area focuses on students' skills in four areas: data representation, characteristics of data sets, experiments and samples, and probability. At grade 4, students are expected to use standard statistical measures such as the median, range, or mode, and to compare sets of related data; at grades 8 and 12, they are also expected to show understanding of other statistical concepts such as the impact of outliers and the line of best fit in a scatterplot. By grade 8, students are expected to have some knowledge of experiments and samples, such as being able to recognize possible sources of bias in sampling and identify random versus nonrandom sampling, and by grade 12 they are also expected to make inferences from sample results. Students at all grades are expected to use statistics and statistical concepts to analyze and communicate interpretations of data. Students may be asked to solve problems that address appropriate methods of gathering data, the visual exploration of data, ways to represent data, or the development and evaluation of arguments based on the analysis of data. Probability is assessed informally at grade 4 and more formally at grades 8 and 12.

## Mathematical Complexity

### ***Low Complexity***

This category relies heavily on the recall and recognition of previously learned concepts and principles. Items typically specify what the student is to do, which is often to carry out some procedure that can be performed mechanically. It is not left to the student to come up with an original method or solution.

Description	Grade	Type	Difficulty
Given probability, determine faces of a cube labeled R	8th	Multiple Choice	Medium