

Carla has 12 boxes that each weigh the same amount. What would be a quick way for her to find the total weight of the 12 boxes?

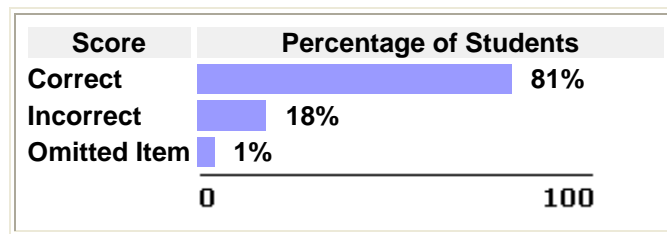
- A) Add 12 to the weight of one of the boxes.
- B) Subtract 12 from the weight of one of the boxes.
- C) Divide the weight of one of the boxes by 12.
- D) Multiply the weight of one of the boxes by 12.

Key

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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: *Number sense, properties, and operations*
Mathematical Ability: *Conceptual understanding*

Mathematical Content Area

Number sense, properties, and operations

This question measures number sense, properties, and operations. This content area focuses on students' understanding of numbers (whole numbers, fractions, decimals, integers, real numbers, and complex numbers), operations, estimation, and applications to real-world situations. Students are expected to demonstrate an understanding of numerical relationships as expressed in ratios, proportions, and percents. Students are also expected to understand properties of numbers and operations, generalize from numerical patterns, and verify results. Number sense includes questions that address a student's understanding of relative size, equivalent forms of numbers, and use of numbers to represent attributes of real-world objects and quantities.

Mathematical Ability

Conceptual understanding

This question measures students' conceptual understanding. Students demonstrate conceptual understanding in mathematics when they provide evidence that they can recognize, label, and generate examples of concepts; use and interrelate models, diagrams, manipulatives, and varied representations of concepts; identify and apply principles; know and apply facts and definitions; compare, contrast, and integrate related concepts and principles; recognize, interpret, and apply the signs, symbols, and terms used to represent concepts. Conceptual understanding reflects a student's ability to reason in settings involving the careful application of concept definitions, relations, or representations of either.

	Description	Grade	Type	Difficulty
1	Identify solution method that uses multiplication	8th	Multiple Choice	Easy