

What is the value of  $x$  in the triangle above?

- A)  $65^\circ$
- B)  $82^\circ$
- C)  $90^\circ$
- D)  $92^\circ$
- E)  $98^\circ$

Did you use the calculator on this question?

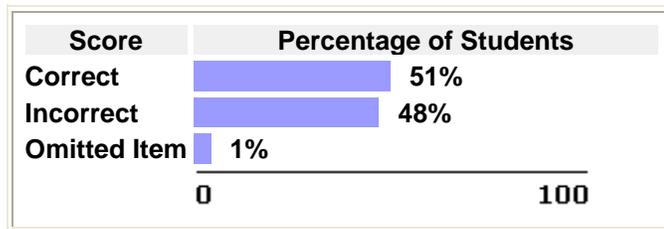
- Yes       No

**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:** *Geometry and spatial sense*  
**Mathematical Ability:** *Procedural knowledge*

## Mathematical Content Area

### *Geometry and spatial sense*

This question measures geometry and spatial sense. This content area extends beyond low-level identification of geometric shapes into transformations and combinations of those shapes. It focuses on informal constructions and demonstrations along with their justifications. The geometry and spatial sense area includes the demonstration of reasoning within both formal and informal settings. Proportional thinking to similar figures and indirect measurement is an important connection in this area.

## 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	Find the measure of an angle in a triangle (calculator available)	8th	Multiple Choice	Medium