

**North Carolina Testing Program  
Mathematics End-of-Course Tests  
Geometry Formulas Students Need to Know and Understand  
(See Caution Below)**

*From the North Carolina 2003 Mathematics Standard Course of Study (SCS):*

Course	Objective(s)	Relationship/Formula
Algebra I	2.01	Find the lengths and midpoints of segments to solve problems.
Geometry	1.01 1.02, 1.03	Trig Ratios Surface Area and Volume of Sphere, Cone, and Pyramid
Algebra II		No Additional Geometry Formulas

Caution: Formulas should not be presented as rote learning. The SCS emphasizes problem solving in all courses.

Note that students' knowledge and understanding of relationships at each grade level is expected to carry forward. This includes material from grades 8 and lower, as given on the [2003 EOG formula sheet](#) at the NCDPI web site.

Other formulas will be provided in the specific questions.

Some problems will require more reasoning than remembering a formula, substituting values, and computing the answer: for example, students may need (1) to use additional steps to find the values needed for the formulas, or (2) to understand that a more complicated shape may be decomposed into simpler parts.