

Challenging Opportunities in Mathematics, K-12 Programs and Competitions*

	Name/grade	Web	Description
K-5			
	American Statistics Association Poster Competition, grades K-3, 4-6, 7-9, and 10-12.	www.amstat.org/education	This competition encourages children, K-12, in the United States and Canada to discover the usefulness of displaying data in creative ways. The purpose of the poster is to tell a statistical story visually, and to illustrate conclusions that can be drawn from the data.
	24 Challenge; grades 2 and up	www.math24.com	Students gather around a “24” card. On each card is printed four numbers. Students race mentally to use each number once in a calculation that yields 24. There are three levels of difficulty.
	Continental Math League; grades 2-9	www.li.net/-majorbar/cml .	School teams complete real-world problems proposed by Continental Math League
	Educational Program for Gifted Youth (EPGY), K-12	www-epgy.stanford.edu	EPGY is a project dedicated to developing and offering multimedia, computer-based, distance learning courses. It provides high ability students, K-12, access to a variety of subjects at all levels. Students are allowed to learn at their own pace.
	John Hopkin’s Talent Search, grades 2-8	www.jhu.edu/~gifted	John Hopkins Center for Talented Youth is dedicated to identifying young people’s talents in mathematics and language arts and offering them in-school or out-of-school educational programs in mathematics, the sciences and the humanities.
	Math League; grades 4-12	www.mathleague.com	These contests are designed to build student interest in mathematics and confidence in mathematics through solving worthwhile problems. <i>Sample problem, grade 4</i> Monday I skated 1 km. Each day, I skate twice as far as the day before. When will I skate more than 20 km in a day? A. Friday B. Saturday C. Sunday D. Monday
	Mathematical Olympiads; Division E-gr. 4-6	www.moems.org	School teams complete special, real-world problems proposed by the Mathematical Olympiads organization. Five Olympiads are held about one month apart from November through March. Individuals and teams are eligible for awards.

*The Connecticut State Department of Education does not endorse the diverse programs listed here. The programs are a broad, but not exhaustive, sample of mathematics activities that are open-ended and can challenge students’ mathematical thinking.

6-8			
	American Statistics Association Poster Competition, grades 4-6 & 7-9, see above	www.amstat.org/education/project	
	American Statistics Association Project Competition, , grades 4-6, 7-9 and 10-12	www.amstat.org/education/project	The Statistics Project Competition offers the opportunity for students to answer research questions using statistical techniques. Students may work individually or in teams of two to six people. Data does not need to be collected by entrants.
	American Mathematics Competitions (AMC)	www.unl.edu/amc	The AMC offers a series of national contests including: American Mathematics Contests (AMC 8), American Mathematics Contest 10 (AMC 10) American Mathematics Contest 12 (AMC 12), American Invitational Mathematics Invitational (AIME), and the United States of America Mathematical Olympiad (USAMO).
	Connecticut Association for Mathematically Precocious Youth (CAMPY)		CAMPY sponsors a series of challenging, hand-on workshops for students and teachers each year in high-interest topics. Call Judy St. Marie, (860) 848-9208.
	Educational Program for Gifted Youth (EPGY), K-12, see above	www-epgy.stanford.edu	
	John Hopkin's Talent Search, grades 2-8, see above	www.jhu.edu/~gifted	
	MATH COUNTS	mathcounts@nspe.org	In this mathematics contest, students begin training in November to participate in state-level finals in March. National finals for teams and individuals begin in May
	Math League, see above	www.mathleague.com	<i>Sample problem; grade 7</i> The ratio of boys to girls in a math class is 3:1. If 2 boys leave the class, the ratio of remaining boys to girls could not be A. 2:1 B. 1:1 C. 5:2 D 1:2
	Mathematical Olympiads, Division M, grade 7, see above	www.moems.org	

9-12			
	American Statistics Association Poster Competition, grades 10-12, see above	www.amstat.org/education	
	American Statistics Association Project Competition, , grades 4-6, 7-9 and 10-12	www.amstat.org/education	The Statistics Project Competition offers the opportunity for students to answer research questions using statistical techniques. Students may work individually or in teams of two to six people. Data does not need to be collected by entrants.
	American Mathematics Competitions (AMC), see above	www.unl.edu/amc	
	Consortium for Mathematics and Its Applications (COMAP)	www.comap.com	The mission of COMAP is to improve mathematics education for students. The organization offers a free contest for high school students, High School Mathematical Contest in Modeling (HiMCM), and the contest is designed to improve students problem solving and writing skills. Teams include four students and each team works on a real-world problem for a consecutive twenty-four hour period.
	Connecticut Association for Mathematically Precocious Youth (CAMPY), see above		
	Educational Program for Gifted Youth (EPGY), K-12, see above	www-epgy.stanford.edu	
	Math League, see above	www.mathleague.com	<i>Sample problem, high school</i> The College of Hard Knox belongs in a six-school league in which each school plays four games with each of the other schools. No tied games ever occur, and the other five schools finished this season having won, respectively, 20%, 30%, 35%, 60%, and 80% of the league games that they played. What was the College of Hard Knox's final winning record in the

			league this year (expressed as a percent)?