



VCTM 2021 Math Beauty Contest

The theme of the VCTM 2003 spring conference was “Mathematics: A Universal Network of Beauty.” Johnny Lott, President of NCTM, commented in his address to participants that he liked the conference title and thought it might be nice to have a Mathematics Beauty Contest. After some discussion the publicity committee for VCTM thought that Johnny Lott’s idea might be a way to publicize VCTM and also give students throughout Virginia a chance to show their problem solving ability in “beautiful ways.”

VCTM is sponsoring the contest again this year and is offering students the opportunity to submit solutions to problems. The committee will receive entries **by mail only**. No emails or faxes will be accepted. **Each entry must have two 3”x 5” index cards attached with the following information on each one: name, address, phone, E-mail (if there is one), school, address of school, school phone number and grade level for the contest. Please place all of this same information on the actual paper as well.** If the index cards are not included the entry will be disqualified. We had over 1,300 entries the first year so it is important that students follow the procedures. One of the index cards for each person will be placed in a container and one entry will be drawn from each group. The entry that is drawn must have a correct solution and must show the logical, sequential development of the solution. A paragraph fully explaining the thinking involved and the problem solving strategies used is required. The committee will not be looking for just algorithms to be used, but will be concentrating on the development of the solution. Students are encouraged to construct their own knowledge in order to solve the problem. Students should also be encouraged to proofread their work so that there are no careless mistakes that would disqualify their solutions.

The problems are for students to work. They are **not** intended as family exercises or classroom exercises where everyone works on them together. If a student needs to have someone read the problem to him/her, that is acceptable, but all work should

be the student's work. We want to encourage thinking and the use of problem solving strategies. Solutions do not have to be "beautiful" works of art. That is not what we are emphasizing in this contest. Work should be neatly done and should be legible. The process and thinking used to arrive at a correct solution are the "beautiful" aspects of this contest. Students at all levels may work the problems using any strategy that is meaningful to them and that arrives at a correct solution. We **are not** looking for a "my way or the highway" type solution. It is important to explain the thinking that has occurred during the acquisition of the solution, so a paragraph stating this must be included. A parent or another adult may need to write the paragraph **that the student dictates** at the k - 2 levels or for those who need special accommodations because of disabilities.

You will find the problems for the various levels at www.vctm.org/beauty. Math supervisors and math contact people please distribute these to each of your schools. The contest begins April 1st. The entries must be postmarked by May 7, 2021. One winner will be selected for each level. The names of the winners will be posted on the VCTM website. Winners will be notified by mail. Each winner will receive a framed certificate and a \$25.00 Walmart Gift Card and a party for their class. Remember, entries must be postmarked by May 7, 2021 and **must be submitted by mail only**. Questions may be addressed to Brenda Barrow at themathlady@cox.net or (757) 617 - 0984. **Please call only if you do not have access to email.**

Each grade level group has a person who will be receiving the entries. Please be careful to send the entry to the correct contact person. If a middle school student would like to enter the category for ninth – Algebra I he/she is welcome to do so, but he/she must send the entry to the contact person for the ninth – Algebra I group.

We are looking forward to having many "beautiful" entries for this "Mathematics Beauty Contest." Mathematics truly is a beautiful subject and we want the world to know it. **Check vctm.org/beauty for the winners after May 28.** After May 28, there will be a certificate of participation that those who entered the contest.