

# Challenging Math

Our main goal will be to strengthen analytical skills of children using math as a tool. We will go in three different directions.

Firstly, the children will develop techniques necessary to solve challenging problems. Doing so will allow students to go far beyond their school level. Materials we cover include: addition up to three digit numbers, multiplication up to 100, division, divisibility rules, properties of addition, subtraction, division, and multiplication. We also discuss parenthesis and their meaning. As time permits we will cover variables and simple equations. Finally, we will learn the coordinate system, line, bar graphs, Venn Diagrams and their interpretations.

Secondly, we will work on challenging problems and develop various strategies to tackle them by applying the previously studied techniques. This will eventually enable us to participate into math contests for elementary school students.

Finally, we will go through materials that develop imaginative and critical thinking necessary for success on standardized tests starting from the elementary school and continuing throughout the student's academic career. This will include: verbal classifications, sentence completions, analogies, antonyms, synonyms, number series, sequences and logical inference.