Name: Michael Neri

District: Valley Stream UFSD #24

Grade: 6th

Subject: Math

**24 Challenge**

**24Theory**

CCLS Standards Addressed:

Apply and extend previous understandings of multiplication and division to divide fractions by fractions.

[CCSS.MATH.CONTENT.6.NS.A.1](http://www.corestandards.org/Math/Content/6/NS/A/1/)

Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?*.

Compute fluently with multi-digit numbers and find common factors and multiples.

[CCSS.MATH.CONTENT.6.NS.B.2](http://www.corestandards.org/Math/Content/6/NS/B/2/)

Fluently divide multi-digit numbers using the standard algorithm.

[CCSS.MATH.CONTENT.6.NS.B.3](http://www.corestandards.org/Math/Content/6/NS/B/3/)

Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

[CCSS.MATH.CONTENT.6.NS.B.4](http://www.corestandards.org/Math/Content/6/NS/B/4/)

Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor. *For example, express 36 + 8 as 4 (9 + 2).*.

Apply and extend previous understandings of numbers to the system of rational numbers.

[CCSS.MATH.CONTENT.6.NS.C.5](http://www.corestandards.org/Math/Content/6/NS/C/5/)

Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.

[CCSS.MATH.CONTENT.6.NS.C.6](http://www.corestandards.org/Math/Content/6/NS/C/6/)

Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.

Website/ Location of app: http://www.appbrain.com/app/math-24-challenge/com.math24\_2#descriptionsection

Description

In this game, students are given four numbers between 1 and 13, and have to use addition, subtraction, multiplication and/or division to make 24. You have 120 seconds to begin with. Solving one puzzle will earn you 10 seconds. You get 20 seconds deducted for each puzzle skipped. At the end of the time, your score will be compared to other players locally and globally. Some questions require multiple operations to be solved. Nice clear application that is easy to use.

Application

We use to play this game in my class with cards that had the same basic information and rules. This is the technologically advanced version. It challenges students to look at problems from many various angles and encourages trial and error. Students can check their work after each question is solved. They felt that the app was easy to navigate. It only took a few minutes for them to get used to it and work independently.