Getting Students Excited About Math
God's Amazing Numbers

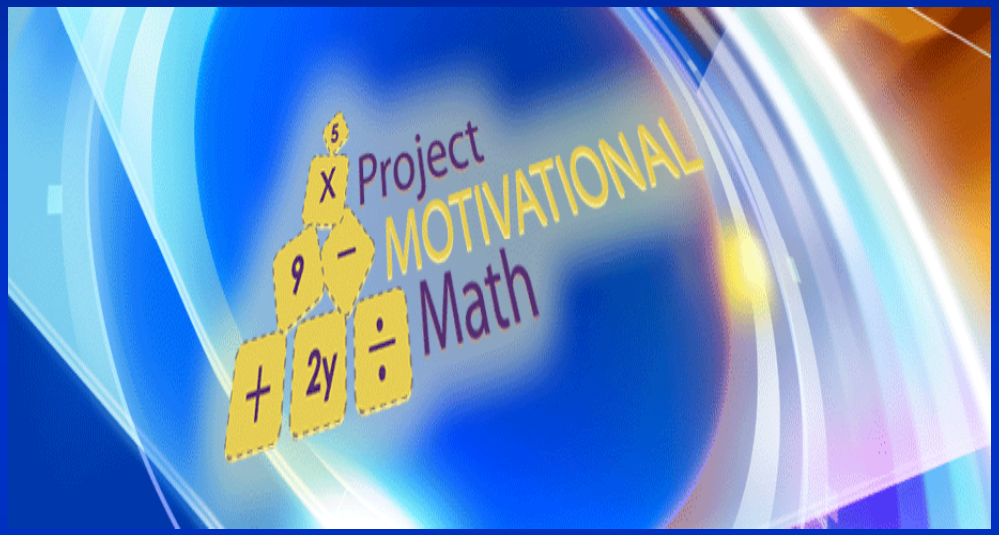
Presented by
Project Motivational Math

Serving Students in North America and the Virgin Islands

Facilitator: Mr. Willie Walker, M. ED

Aka "Mr. Math" From Birmingham, Al

“Building Positive Attitudes”



“Promoting Enthusiasm for Learning”

PMM's Icebreaker

Figure out the phrase or problem of each one.

1. STAND
   I

2. MIND
   MATTER

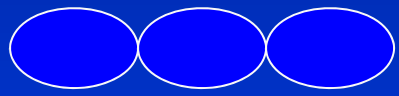
3. |R|E|A|D|

4. QTPI

5. GI
   CCCCCCC

6. 0
   M.D.
   PH.D.

7. I I I I



8. 10 A C

9. I RIGHT I

10. ME REPEAT

11. 
    How many rectangles?

12. TO KEEP UCH

13. How many ways can you arrange 5 different books of a shelf?

14. Six students from Grace Academy made the finals at the state wide mental math competition. They were so excited until they all shook each other hand once. How many hand shakes were there?

Place ten horses in nine stalls without doubling up or going outside one of the stalls.

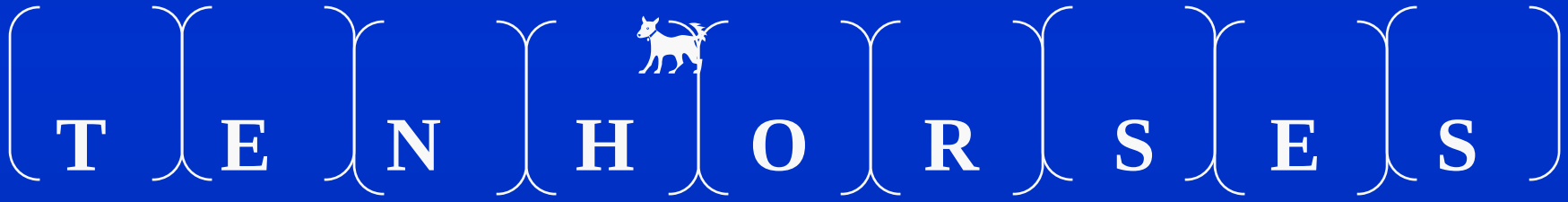
- Mr. Dunkin gave you two empty containers. One is a five gallon container and the other one is a three gallon container. How would you fill up the five gallon container with four gallons of water without having anything to measure with?

Mission Statement

"*Project Motivational Math".*

We will prepare young minds to excel in mathematics and build confidence through motivational activities. We believe that every child has an innate ability to learn."

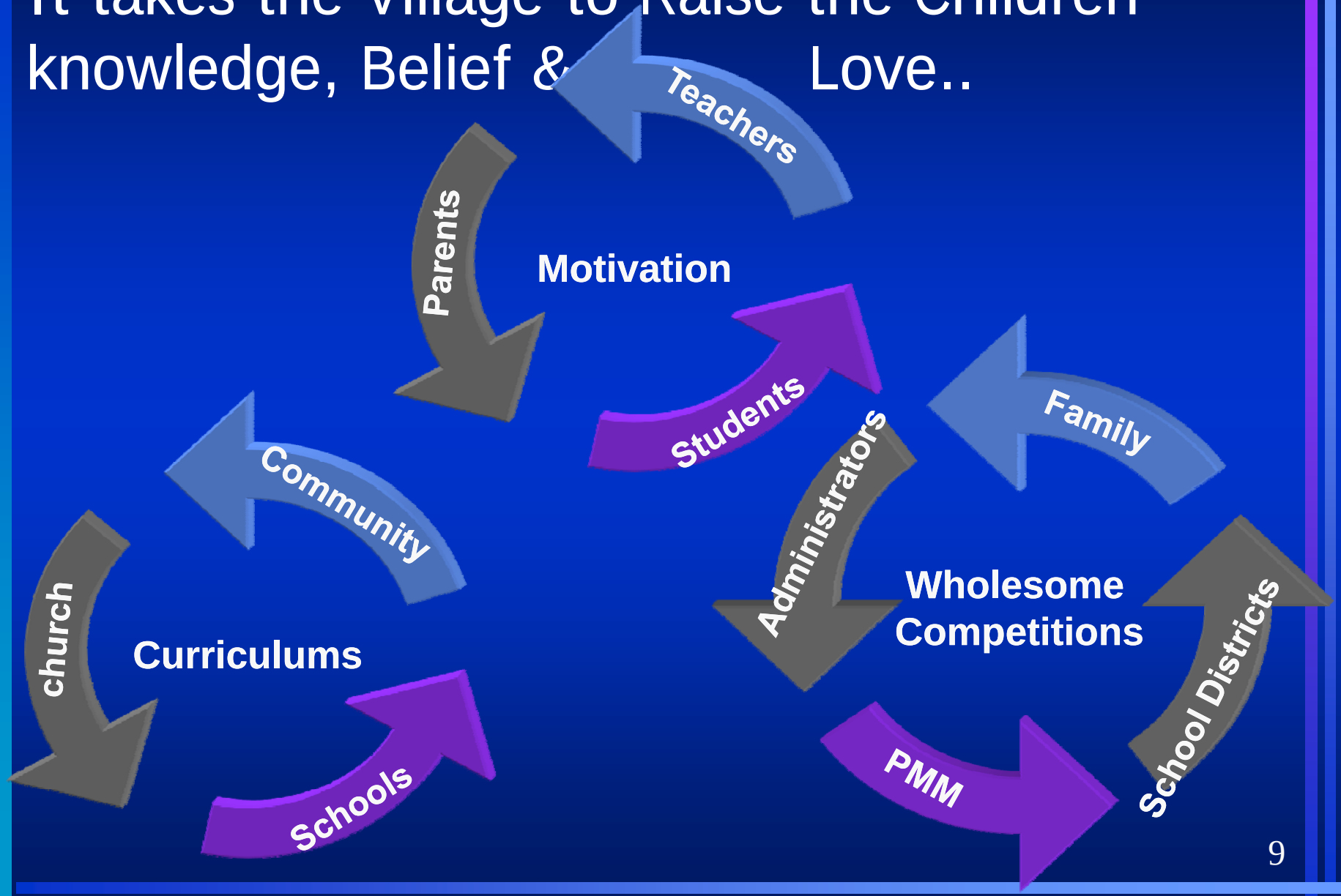
Place ten horses in nine stalls without doubling up or going outside one of the stalls.



What it takes...

...Adds up to Motivation!!

It takes the Village to Raise the Children knowledge, Belief & Love..



Mental Math

9x9+19+100+100÷25x12 take a square root, minus 1 times 11 – 21 divided by 10 = ?

10

Times Tables

9X9, 7x8, 6x9, 7x7, 8x6, 7x9, 9x8

12x12, 11x11, 8x8, 13x13, 14x14

13x13=169, 14x14=196, 15x15=225,
16x16=256, 17x17=289

Mental Math #1

6 X 8 = 48 plus 2 = 50

50 ÷ 5 = 10

10 X 10 = 100

100 + 100 = 200

1/2 of 200 = 100

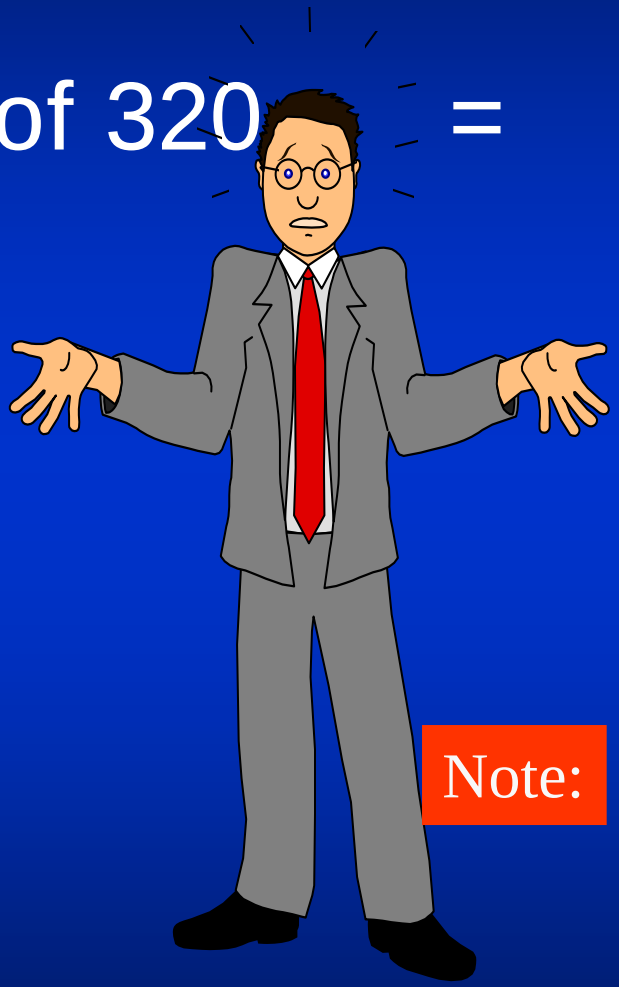
100 X 3 = 300

300 + 20 = 320

½ of 320 = ?

What is the Answer?

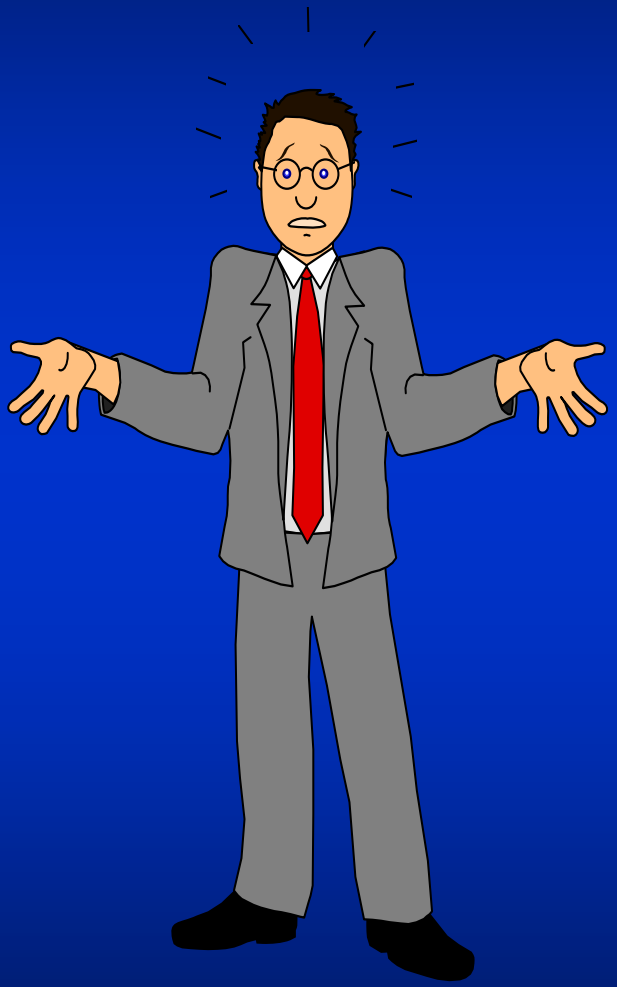
½ of 320 = 160



Great!

Note: Walker's Version of Mental Math
Forget about order of operation!

Everyone can count money



How many quarters does it take to make a dollar? $2 = ?, $3 = ?

- 1.00 = 4 quarters
- 2.00 = 8 quarters
- 3.00 = 12 quarters
- 4.00 = ?

What is the pattern?

What is the inverse of addition?

Subtraction

What is the inverse of Multiplication?

Division

100 ÷ 25 = 4

200 ÷ 25 = 8

300 ÷ 25 = 12

What is the pattern?

Whenever you are dividing hundreds by 25's just multiply the first digit by 4.

For example: 400 ÷ 25 = 16 because 4 x 4 =16

600 ÷ 25 = ? 900 ÷ 25 = ?

Mental Math #2

6 X 8 = 48 plus 2 = 50

50 ÷ 5 = 10

10 X 10 = 100

100 + 100 = 200

1/5 of 200 = 40

40 X 7 = 280

280 + 20 = 300

300 ÷ 25 = ? 12

Mental Math #3

9 X 9 = 81 plus 19 = 100

100 + 200 = 300

300 ÷ 25 = 12

12 x 12 – 44 = 100

½ of 100 = 50

½ of 50 = 25

½ of 25 = 12.5

12.5 plus .5 = 13

13 x 13 = 169 is the answer

Mental Math #4

1/2 of 24 = 12 plus 8 = 20

20 X 5 = 100

100 + 21 = 121

take a square root = 11

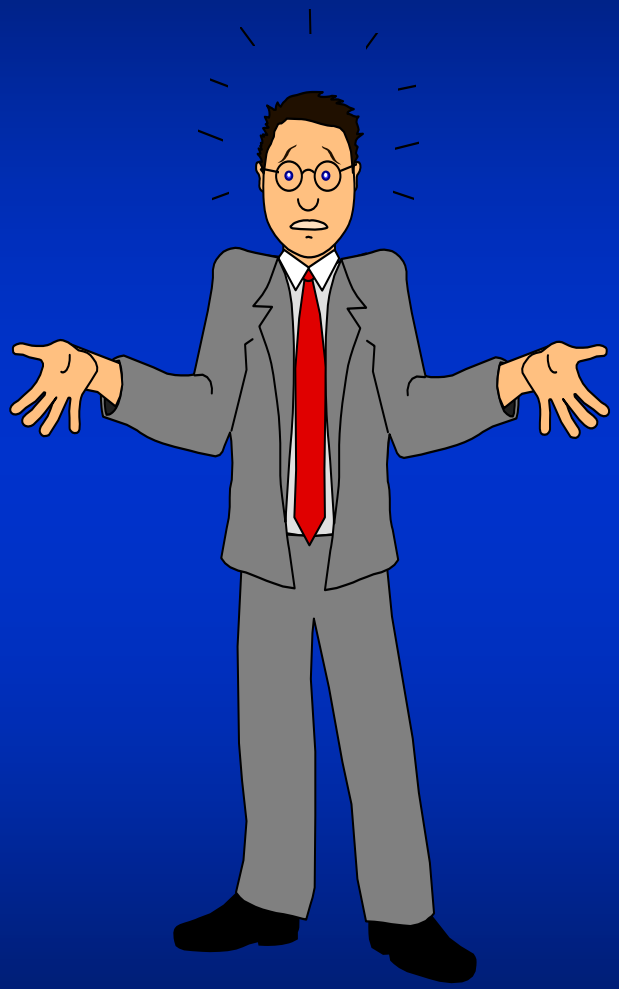
11 - 5 = 6

6 X 12 = 72

72 X 2 = 144 + 56 = 200

200 ÷ 25 = 8 X 50 =?

What is the Answer?



- 8 X 50 =
- 400

Mental Math #5

The # of inches in a foot X 7 = 84 minus

34 = 50

50 ÷ 5 = 10

10 X 12 = 120

120 + 80 + 100 = 300

300 ÷ the # of seconds in one minute

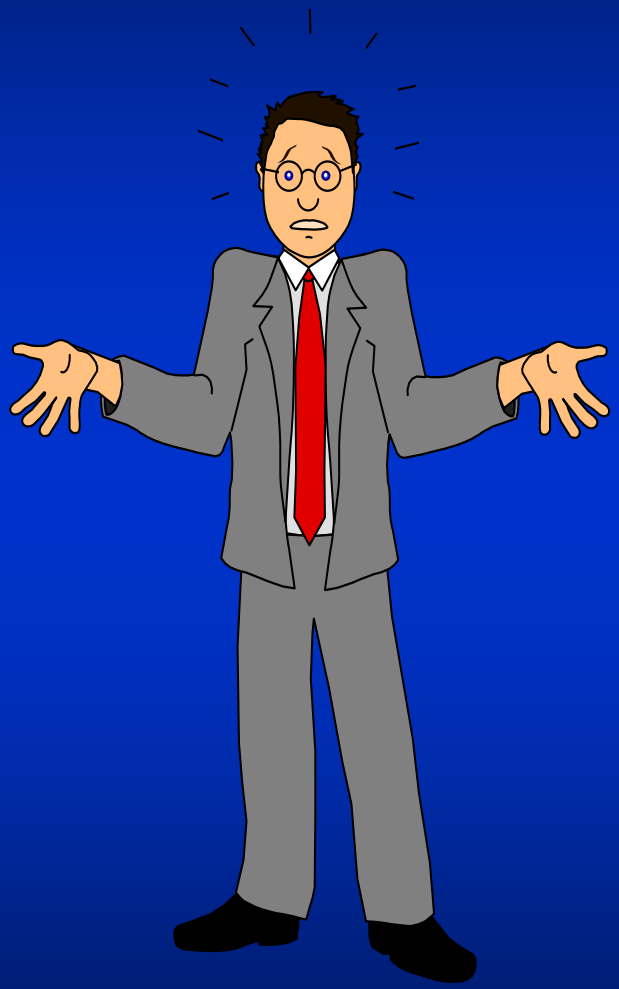
= 5

5 X 5 X 5 = 125

125 + 20 = 145

145 ÷ 10 = ?

What is the Answer?



- 145 ÷ 10 =
  - 14.5

  or
  - 14 r5

Fractions,Decimals,Percents & Square Roots

1/3 of 27 = 9

2/3 of 27 = 18 What is 3/3 of 27?

1/5 as a decimal = .20

1 ÷ 5 = .2 5 $\overline{)1.00}$

What is 1/4, 1/2, 3/4 as a decimal

30 % of 120 = .30 x 120 = 36

What is 20% 160 ? What is 40% 150 ?

Square roots & Cube roots

There are 550 people at Davis Elementary School in Mt. Vernon, New York. There are 150 people on the first floor and 250 people on the second floor, how many people are not on the first floor?

Mr. McKenzie had 375 herd of cattle until hoof and mouth disease came along. All but 50 of his cattle died, how many were left alive?

Ft. Worth Middle School asked a number of students to add these mixed numbers and whole numbers within 5 seconds mentally.

$6\frac{1}{2} + 3\frac{1}{4} + 5\frac{3}{4} + 4 = ?$

PMM Teaches Unique Strategies
Here are just a few!

1. Motivational Strategies.
2. Critical Thinking (Math Buzz)
3. Multiplying with 5, 9, 11, 12, etc.

4. Squaring #'s ending in 5's.

5. Multiplying 2 digits across and #'s by 1/2's.

6. Calculating with 9's

7. Calculating your birth date and your age.
8. Extracting the cube root with calculators.

Multiplying by 11’s

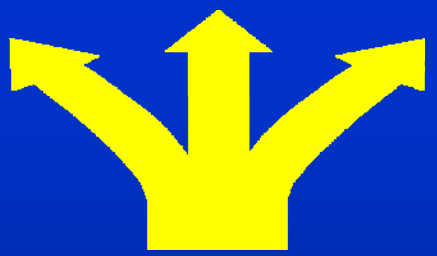
23 X 11

H	T	O
2	5	3

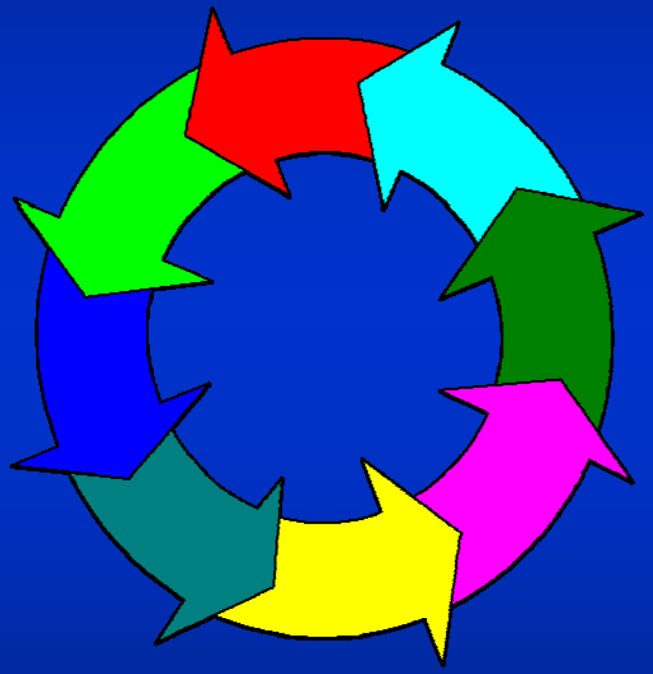
2 + 3 = 5

45 X 11

4	9	5



4 + 5 = 9



44 X 11 =

24 X 11 =

35 X 11 =

55 X 11 =

Multiplying by 5”s ☺

12 X 5

Cut 12 in half by dividing it by 2 12 ÷ 2 = 6

Multiply the 5 by 2 to get 10 5 X 2 = 10

6 X 10 = 60

Why not just cut the first digit in half and add a zero?

18 X 5 = 90 Half of 18 equals 9 plus zero = 90

Odd numbers are handled a little differently

1. 22 X 5
2. 30 X 5
3. 36 X 5
2. 40 X 5
5. 44 X 5
6. 60 X 5
7. 31 X 5
8. 43 X 5
9. 61 X 5

Other Short Cut Methods

Multiplying by 9's; 15 x 9 = 15x10-15 =135

18 x 9 = 162

Multiplying by 12's; 18 x 12 = 10x8 =180 + 36 = 216

Multiplying by splitting 8 x 16 = 8 x 8 x 2 = 128

Multiplying by numbers with the difference of 2

14 x 16 = 15 x 15 – 1 = 224

Multiplying right side of numbers that add to ten

38 x 32 = 1216

Using the Motivational Technique

1. $2y + 5 = 69$ Find the value of Y.

2. A rectangle has a leg of 23cm and a leg of 27cm, what is the area?

3. Five rows and 42 people in each row. How many people were there altogether?

4. Two out of three students from AAA High School did well on the ITBS. If there were 60 students, how many did well on the ITBS?

Testimonials

"The progressive teaching techniques and unique style has proven to be very successful and the new standard of teaching math in Florida."

-Carrie P. Meek, State Senator Florida

"*It isn't easy to get kids to learn math. But Willie Walker may have found a way."*

-Mary Lea Hardesty, Miami Herald

"*Students competing acted like they were playing a game of Nintendo rather than crunching numbers."*

-Sabrina Walters, Miami Herald

"*As a teacher for over 20 years. And someone who enjoys teaching math, Mr. Willie Walker left me in awe of his outstanding math ability."*

-Barbara Morris, Teacher

"The excitement in the children's eyes and actions, were the highlights of this program. Our children felt good about math and themselves."

-Marilyn Jackson-Rahming, Principal Pineview Elementary – Tallahassee, Florida

"I was very happy to witness one of your workshops. I tried your methods on my students in Charlotte, NC and my under achievers out shined my over achievers". Principal Eddelmon Academy, Charlotte, NC

What PMM Students will Learn

1. Multiplication facts in a matter of days.
2. Metric System made Simple.
3. Interpreting graphs, plotting coordinates, etc.
4. Fractions, decimals, percents, GCF, LCM, measurements, ratios, integers; all skills taught in one session with great comprehension.

Example: Adding & subtracting unlike denominators.
Change a fraction to a decimal or a percent.
Find the GCF or the LCM with fractions.
Measurement, Integers, Pre-algebra,
Comparing equivalent fractions and ratios.
Geometry, Critical Thinking, motivational strategies, and much much more….

What PMM can do for you?

1. Implement my innovative curriculum at your school.
   Includes “A Recipe for Mental Math Manual”
2. Mental math training for teachers and students.

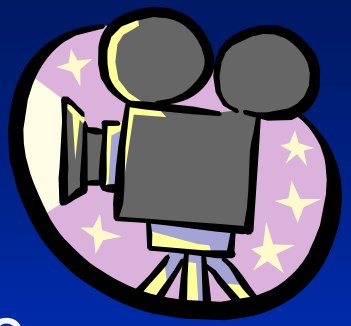
3. Math pep rally to get staff and students excited about math.

4. Classroom modeling of unique strategies taught to students.

5. Conduct a workshop to prepare students and staff for annual math competitions.

6. Assist in setting up a motivational math club with parents and students at your school site.

Roll the Mental Math Video:



- Mental Math Challenge
- Summer Camp Time: 8:00 am – 3:00 pm
- After School Care: 3:00 pm – 5:30 pm

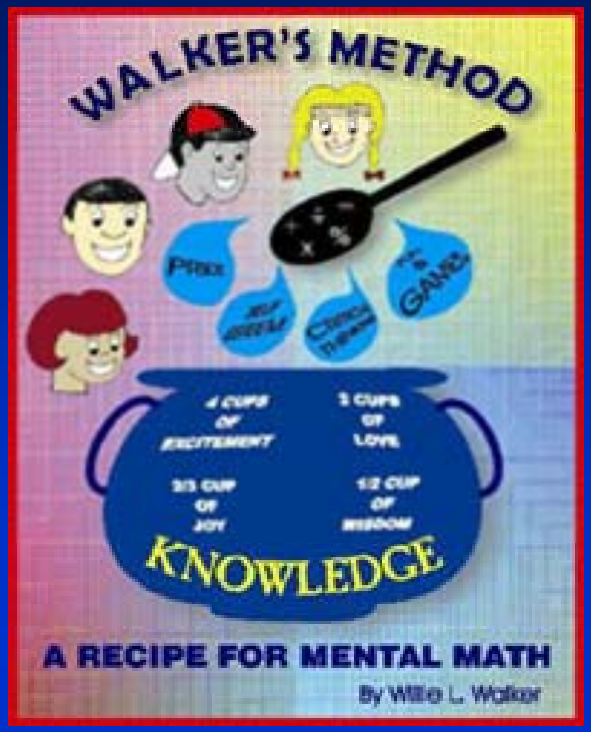
Endorsements

Florida State University
Florida Agriculture & Mechanical University
Operation Reach-Back – Seattle, Orlando, Loma Linda, Chapters
Miami-Dade Empowerment Trust
Duke Energy of Charlotte, NC
2Life Publications of Birmingham
Many School Districts around the country

Applications

- Identify those students in 5th thru 8th grade that can be targeted in order to help any school rise above the minimum state level mathematics exam.
- PMM has had proven success with all types of ethnic and socio-economic students.
- Madison County School District in Madison, Florida test scores went up 63% as a result of the motivational techniques used by PMM.
- Mental Math Competitions have proven to be one of the best tools used to motivate children to get excited about learning. Once we get the students excited we can teach them anything. Remember, “We don’t want to lose our children, when we have ways of winning them”.

“Mr. Math”



$21.95
Call: BookMasters
1-800-537-6727

A Recipe for Mental Math

Short cut methods are used in this innovative approach to teaching speed thinking. Once you have a full understanding of the pattern behind Walker's version of mental math, you will be taken to another level that leads to many repeated steps. As a mental math wizard, you'll be able to impress your friends and family, you'll have an advantage on math quizzes and tests. You will learn to love working with numbers and you will come up with the answer sometimes faster than you could have with a calculator. In Walker's manual you will find Phase I and II. Phase I shows a step by step method of the concepts of mental math. Phase II gives a step by step method of understanding basic math problems. This manual is for ages 10 and up.

Test Your Math Skills…

Solve:

1. A. $-25-34=$ _____ B. $8+9-7-8=$ _____

   C. $6+18-35=$ _____ D. $17-13+68=$ _____

2. Reduce to Lowest Term:

   A. $\frac{3}{6}$ B. $\frac{8}{6}$ C. $\frac{9}{24}$ D. $\frac{6}{7}$ E. $\frac{9}{3}$

   F. $\frac{6}{8}$ G. $\frac{14}{9}$ H. $\frac{9}{18}$ I. $\frac{7}{21}$ J. $\frac{100}{100}$

3. $16 - 4\frac{2}{12}$

4. $6\frac{1}{3} + 8\frac{7}{8}$

5. $9\frac{3}{6} - 5\frac{6}{8}$

6. $3 \times 7\frac{2}{4}$

Test Your Skills …… **Page 2**

7. Find the Value of N:

A. $\frac{6}{N} = \frac{42}{49}$ B. $\frac{2}{8} = \frac{6}{N}$ C. $\frac{3}{8} = \frac{N}{72}$ D. $\frac{N}{12} = \frac{9}{36}$

8. 168 inches is equal to how many feet? _____
9. 5 ¾ feet is equal to how many inches? _____
10. 3 ½ tons is equal to how many pounds? _____

11. Round to nearest tenth 7436.374 _____
12. Round to nearest hundredth 6847.995 _____
13. Round to nearest whole number 756.497 _____

14. The ratio girls to boys is 8 to 6. If there are 36 boys, how many girls are there?
15. The ratio cows to bulls is 5 to 7. If there are 96 animals, how many cows are there?

Test Your Math Skills… **Page 3**

Solve:

16 . 6 hours 31 mins 25 sec
– 2 hours 35 mins 30 sec

17. 12 yards 9 feet 6 inches
– 9 yards 11 feet 10 inches

18. A. $6y + 24 = 7$ B. $5ab + 9a + a + 15ab$ C. $-4(3ak - 2k)$

19. A. 38 % of 120 B. 45% of 90 C. 6 is 24 % of what number?

20. There are 24,000 immigrants who came to Florida in 1980. 60% of those immigrants migrated outside the state of Florida. What is the total number of immigrants who stayed in Florida?