Math Challenge #7

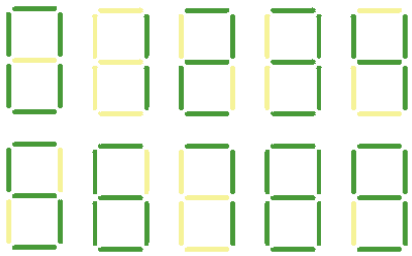
First Name: _____
Last Name: _____
Grade: _____
Teacher: _____

Math Challenge 7 is a fun calculator game or puzzle called a 7-segment display. The 7-segment display has seven lit-up bars which are on or off depending on what number is supposed to be displayed. With a little imagination you will be able to see some of the 7-segment numbers as letters of the alphabet.

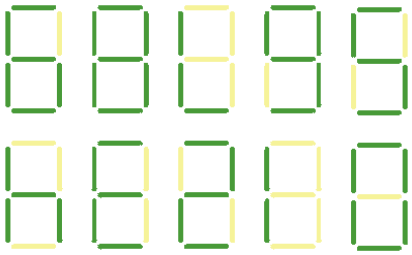
How to play this game or puzzle:

- Use all hints to find the number
- Color in the 7-segment display
- Try to find letters and read the words. You may turn your colored display upside-down.

7 segment Digit Word Game



This is what it looks like upside-down



Can you find B, L, g, S, h, E, I, O?

Vocabulary

Consecutive Numbers: numbers which follow each other in order, without gaps, from smallest to largest.

Even number: number ending with 0, 2, 4, 6 or 8 or any integer that can be divided exactly by 2.

Odd number: *number ending with 1, 3, 5, 7 or 9 or* any integer that cannot be divided exactly by 2.

Sum: the result of adding two or more numbers.

Product: the result of multiplying two or more numbers

Prime Number: whole number greater than 1 that can be divided only by itself and one. (2, 3, 5, 7, 11… are some prime numbers). 1 is not a Prime Number!

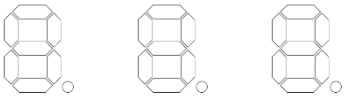
Natural Numbers: the number 1 and any other number obtained by adding 1 to it repeatedly (1, 2, 3, 4, 5…)

Your solutions to this challenge are due on **Thursday, January 12 (no later than 3 p.m.).** There will be fuzzy-headed bird pens to give away to four lucky winners. Winners are randomly selected from qualified submissions and will be announced on Tuesday, January 17, 2012.

Kinder, First & Second Grade: Solve <u>at least</u> 3 problems.
Third & Fourth Grade: Solve <u>at least</u> 5 problems.
Fifth & Sixth Grade: Solve <u>at least</u> 7 problems.

1. A Boy's name

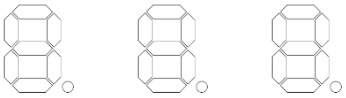
- The first digit is the missing number: 5, 6, 7, **?** ,9
- The second digit represents NOTHING
- Third digit is same as first one
- The number is_____
- Color 7 segment number below



- The word is _____

2. A really big pig….

- The first digit is the natural number which comes after 5
- The second digit is the same as the smaller digit in the number 90
- The third digit is the second even natural number
- The number is_____
- Color 7 segment number below



- The word is _____

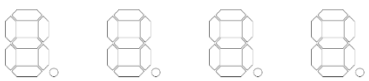
3. A famous mother….

- The first two digits are the second and third odd numbers
- The next two digits represent NOTHING
- Last digit is one half of a dozen
- The number is_____
- Color 7 segment number below

- The word is _____

4. A firefighter tool….

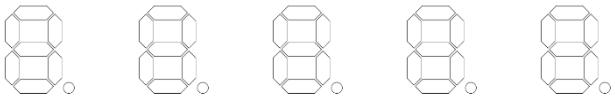
- The first digit is three times greater than 1
- The second digit is the third prime number
- Next digit is the product of 0 and 5
- The fourth digit is five times smaller than 20
- The number is_____
- Color 7 segment number below



- The word is _____

5. Say….

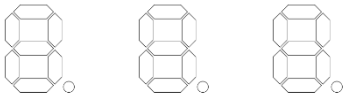
- The first digit is the product of 7 and 0
- The next two digits are the product of 7 and 11
- The third digit is 7 times smaller than 21
- The fourth digit is the difference of 21 and 17
- The number is_____
- Color 7 segment number below



- The word is _____

6. Spelling…..

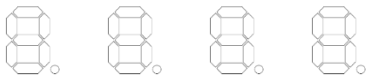
- The first two digits are one half of 66
- Last digit is the sum of 5 and 3
- The number is_____
- Color 7 segment number below



- The word is _____

7. A healthy breakfast….

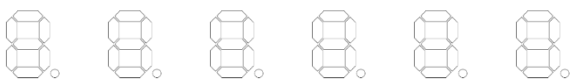
- The first digit is the third odd number
- The second and third digits are the product of 6 and 11
- The fourth digit is the difference of 19 and 22
- The number is_____
- Color 7 segment number below



- The word is _____

8. The original snowmobile

- The first two digits are the product of 23 and 2
- The second two digit prime number equals the third and fourth digits
- Last two digits are same as value of 3 quarters
- The number is_____
- Color 7 segment number below



- The word is _____

Extension:

Try this calculation using your calculator.

Do you want your calculator to be more friendly?
Follow these steps:

- enter 6.2
- multiply this by itself
- add 0.23
- divide by 50 .7734
- turn the calculator upside down, and you have a friendly greeting, which is _____

What is the number 376616 look like when they are turned upside-down? _____

How about 77345? _____

Can you come up with three more words?

Numbers	Words
_____	_____
_____	_____
_____	_____

Math Challenge 8 *will be available on* ***January 20, 2012*** *at* www.mathinaction.org *and in our school's newsletter on* ***January 23, 2012.***