

Math Challenge #2



Name: _____
 Grade: _____
 Teacher: _____

Digits and **numbers** are like letters and words; we use them every day. **Digits** and **numbers** are used to express amount, total, and measurement. We also use them for labels (telephone numbers), for ordering (serial numbers), and for codes. Math Challenge #2 has something to do with **digits** and **numbers**. Your solutions to this challenge are due on **Thursday, October 20 (no later than 3 p.m.)**. For this special challenge, every student who submits the required solutions will receive a Halloween rubber ducky.



Try to challenge yourself to do more than required.
First & Second Grade: Solve at least 5 problems.
Third & Fourth Grade: Solve at least 8 problems.
Fifth & Sixth Grade: Solve at least 11 problems.



Vocabulary: consecutive, even and odd; sum and product; prime numbers (see back).

1. What is a 2 digit number in which the first digit is 1 and the second digit is 7? Answer: _____
2. How many digits are in the number 13579? Answer: _____
3. How many odd digits are in the number 14562? Answer: _____
4. What is a 3-digit number in which the first digit is the smallest odd counting number, the middle digit is the first even counting number, and last digit is 4? Answer: _____
5. The following 5-digit number is made of 5 **consecutive odd** digits. Which digit is missing?

Answer: _____

1	3	?	7	9
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6. What is the **sum** of the digits in the number 2011? Answer: _____
7. What is the **product** of the digits in the number 2011? Answer: _____
8. A 3-digit number is in counting order. If you add the digits, the sum is 12. What is the 3-digit number?

Answer: _____

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9. If you use only digits 1 and 2 to form numbers, using each of those digits once per number, how many numbers will you be able to write? Answer: _____
10. If you use **only the first three odd** digits, how many 3-digit numbers will you be able to write without repeating numbers? Answer: _____
11. If you write all numbers from 1 to 60, how many times will you use the digit 5? Answer: _____
12. What is a 2-digit number, in which the product and the sum of its digits is the same?

Answer: _____

(Hint: number is a palindrome)

13. 13. How many even numbers can you write using only the first three single digit prime numbers without repeating any digit? Answer: _____

Extension

Guess this number!

The hundred's digit is an even number between 5 and 8. The ten's digit is 3 less than the hundred's digit. The one's digit is the hundred's digit plus the ten's digit.

Answer: _____

Vocabulary:

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

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

Odd number - numbers ending with 1, 3, 5, 7 or 9. Also, 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...).

1 is not a prime number!

Math Challenge 3 will be available on **October 28** at www.mathinaction.org and in our school's newsletter on **October 31, 2011**.