Math Challenge #15

First Name: ____________________ **Last Name:** ______________________________ **Grade:** ________

Teacher: ______________________ **Parent's email:** ____

Mixed Problems

Welcome to Math Challenge #15. This is our final challenge for this school year. In this challenge, you will encounter a variety of engaging and thought-provoking math problems designed to test your problem-solving skills. From logical reasoning and number patterns to geometry and algebraic thinking, this set of problems will encourage you to think creatively and apply different strategies. Some questions may require working backward, while others will challenge you to recognize relationships between numbers and shapes. Stay persistent, explore different approaches, and most importantly—have fun with the challenge!

Kinder & First Grade: solve at least 3 problems.
Second & Third Grade: solve at least 7 problems.
Fourth Grade and above: solve at least 12 problems.

Answer

1. How many numbers in the chart below are greater than 30?

19	31	27	41
23	15	51	26
13	32	17	33

2. Tim has 20 toy cars. His friend gives him 4 more. If Tim loses 5 cars, how many toy cars does he have left?

3. Each cookie is $2 and each brownie is $4. Liza bought one cookie and two brownies. How much did she have to pay?

4. When Monnique was 5 years old, she took ballet lessons. After 2 years of ballet lessons, she switched to tap dancing lessons for a few years. She is now 10 years old and is still enjoying her tap dancing lessons. How long has she been doing tap dancing lessons?

5. Alexander, Bettina and Chi have a total of 9 candies altogether. If Chi gives 2 candies to Bettina and 1 candy to Alexander, each person then has the same number of candies. How many candies did Chi have at the beginning?

6. Ashley is 10 years old. Brittany is half of Ashley's age. Carla is 6 years older than Brittany. How old is Carla?

7. A positive two-digit number is less than 50. The sum of its digits is 12, and the difference between them is 4. What is the number?

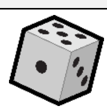
8. Four buckets contain 4, 7, 8, and 9 tennis balls respectively. By moving tennis balls between the buckets (without adding or removing any), what is the minimum number of tennis balls that must be moved to make the number of tennis balls equal in each bucket?

9. What is the product of the three digits used to replace the three letters (A, B, C) in the following calculation?

$$\begin{array}{cccccc} & & & A & 2 & B \\ + & & & 8 & C & 5 \\ \hline & & 1 & 5 & 7 & 1 \end{array}$$

10. How many positive two-digit prime numbers have a ones digit of 9?

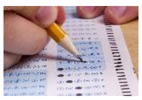
11. Cassidy made a total of $80 over five days. Each day, she made $3 more than the previous day. How much money (in dollars) did she make on the fourth day?

12. 

Paul rolled a standard six-sided die 4 times. He rolled a different number each time. The product of these numbers was 48, and the sum was 13. What numbers did Paul roll?

13. Angelica has a box of candies. She gives 5 candies to Benny and then exactly half of the remaining to Chunlie. After that, Angelica gives Dale 1/3 of the remaining, then she eats two candies and saves the remaining 4 candies for later. How many candies did Angelica have at the beginning?

14. The length of a rectangular swimming pool is exactly three times as long as its width. If the pool has a perimeter of 144 meters, find the width of the pool in meters.

15. 
A class of 20 students took a test which was scored out of 100 points. The class average was 97 points. What is the lowest number of points any student could have scored?

16. Anika's rectangle has a perimeter of 14 inches. Bill's rectangle is twice as long as Anika's longer side and a third as wide as Anika's shorter side. Bill's rectangle has an area of 8 square inches. Both rectangles have whole numbers of dimensions. What is the longer side length of Anika's rectangle?

17. How many positive two-digit numbers are there whose square is a four-digit number?

18. Wency has been practicing the long jump. At one point, her average distance of jumps was 3.8 meters. Her next jump was 3.99 meters; this increased her average distance of jumps to 3.81 meters. After the following jump (which was her final jump), her average had become 3.82 meters. How long, in meters, was the final jump?

Solution is available on May 9, 2025
www.mathinaction.org