Math Challenge #2

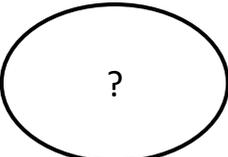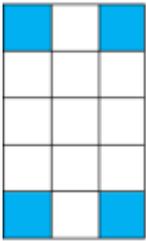| First Name: _____ | Last Name: _____ | Grade: _____ |
| Teacher: _____ | Parent's email: _____ | |

Guess and Check

Welcome to Math Challenge #2. This set of Math Challenge problems can all be solved using Guess and Check strategy or/and Logical Reasoning.
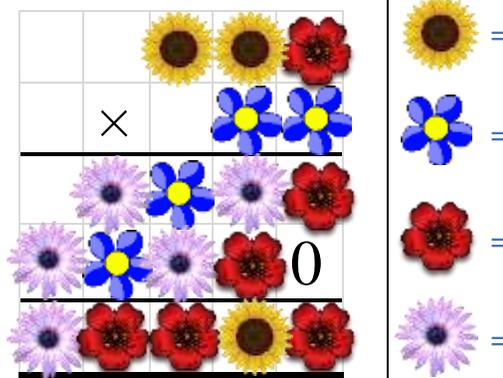
If you are new to any of the problem solving strategies, check out our complete overview of elementary problem solving strategies at https://www.mathinaction.org/problem-solving-strategies.html.

Kinder and First Grade: solve <u>at least</u> 3 problems.
Second and Third Grade: solve <u>at least</u> 7 problems.
Fourth Grade and above: solve <u>at least</u> 12 problems.

Answer

1.	Tim had 8 coins. He lost some. Here are the coins that he has left: How many coins did he lose?	
2.	Roman has the following toys: a truck, a tugboat, a car, a submarine, a motorcycle, and a train. He sorts these items into two groups. He placed the truck, car, motorcycle and train in group A, and the rest in group B. Which toys are in group B? Group A — Truck Car Motorcycle Train Group B — ?	
3.	Liana had 4 quarters, 3 dimes, and 3 pennies. She bought a candy bar using 8 coins. How many coins does she have left?	
4.	Molly wrote three unique positive odd numbers on 3 cards. The sum of the numbers is 11. What did Molly write on the cards?	
5.	Below is a number pattern. Find the missing number in the row below. 20 ☐ 12 8 4	

6.	Kevin and his dad like to eat dumplings. For every dumpling Kevin eats, his dad eats 3 dumplings. Kevin just ate his 4th dumpling. How many dumplings did his dad eat?	

7.	Sanjay wrote three different one-digit numbers and multiplied them together. The result is 42. What is the largest of the numbers he wrote?	

8.	I am a positive two-digit number. I can be divided evenly by 3. I am less than 40. I can also be divided evenly by 10. What number I am?	

9.	Lily wants to color 3/5 of the unit squares. If there are 4 of them already in color, how many more unit squares does she need to color?	

10.	Sierra has exactly $6.00 in fifty-cent coins and quarters. A quarter is worth 25 cents. If she has twice the amount of money in quarters than in 50-cent coins, how many of each coin does she have?	

11.	Mark washed cars on the weekend to raise money for a charity. For every two-door car he washed, he was paid $3, and for every four-door car he washed, he received $5. He washed a total of 17 cars and made $73 for the charity. How many of each type of car did Mark wash?	

12.	Add, subtract, multiply, and/or divide the numbers shown to get an answer of two. You may change the order, but you must use every number once and only once. 10 8 7 6 4 There are multiple solutions to this problem. Provide at least three solutions.	

| 13. | The Pinto family had 6 children. Each child was born exactly two years apart. How old will the youngest child be when the oldest child's age is 3 times the youngest child's age? | |

| 14. | A warehouse contains 185 boxes of the same size. Each box contains at least 64 avocados and at most 89 avocados. Boxes containing the same number of avocados are stacked one on top of another in their own stack. Not all of the stacks have the same number of boxes. The largest stack has x boxes. What is the smallest possible value of x? | |

| 15. | During a basketball game, the 'Sky High' team scored three times as many 2-point field goals than it did 3-point field goals. The team scored a total of 90 points.
How many total field goals did the Sky High team score?
There were no 1-point free-throws. | |

| 16. | Each flower matches a number: 2, 3, 5, or 7. Find which letter corresponds to which number in order for the calculation to be correct. The zero placeholder has been placed into the calculation already. | |

| 17. | The numbers between 1 to 2022 are written on a piece of paper. Caitlin circles the even numbers with red circles and Nicole circles the multiples of 5 with yellow circles. How many numbers are circled with only one color? | |

| 18. | The sum of four positive integers is 125. If you increase the first number by 4, decrease the second by 4, multiply the third by 4, and divide the fourth by 4, you produce four equal numbers. What is the smallest of the original numbers? | |