Which Strategies?

Welcome to the Math Challenge #15. This Math Challenge has a little bit of everything. In this challenge, you will solve problems by drawing a model, working backwards, making an organized list, or a combination of strategies. This is our last Math Challenge for the school year. Parents, please register your email on our website (www.mathinaction.org) to receive any news or notifications about Math Challenge Program for the upcoming school year.

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.

1. Michaella bought 7 pencils. On her way home, she lost 1 pencil. Later she gave 2 of the pencils to her sister. How many pencils does she have left?

2. Lorraine has 6 pieces of candies. Dan has 5 pieces more pieces of candies than Lorraine. How many candies do they have altogether?

3. The number of marbles inside a box is 8 more than the total number of marbles inside the two bags. How many marbles are there in the box?

4. There were a total of 10 eggs in the Conrad family’s refrigerator before Monday. On Monday, 4 eggs were used to make breakfast. On Tuesday, Mrs. Conrad bought 12 more eggs and did not use any egg that day. How many eggs were there in Mr. Conrad’s refrigerator after Mrs. Conrad bought the 12 eggs?

5. What are all the possible 3-digit numbers that can be formed using the given digits? All the digits in each 3-digit number are different.

6. Ashrita mixed five cans of white paint and four cans of red paint to make pink paint. Each can of paint contains 5 gallons of paint. How much pink paint did Ashrita make?
7. In a science quiz, 10 points were awarded for each correct answer and 5 points were subtracted for each wrong answer. Out of 10 answered questions, Andy had 8 correct answers. What was his overall score for the science quiz?

8. Ashleigh runs 2 miles on Monday and three times as many miles on Tuesday. If she wants to run a total of 20 miles this week, how many more miles does she need to run?

9. Mrs. Porter has 123 stickers. After she gives each of her students 8 stickers, she still has 11 stickers left. How many students does she have?

10. On May 13, Joanna returned from a two-week vacation. What date did her trip start?

11. Madeline had 60 books and Ben had 24 books. After Madeline had given Ben some books, Madeline had 20 more books than Ben. How many books did Madeline give Ben?

12. A number is added to 6. The sum is then multiplied by 6. Then 6 is subtracted from the product. When the difference is divided by 6, the result is still 6. What is this number?

13. Four buckets of water are needed to fill half of a tank. The tank can hold 128 liters of water. How much water can a bucket hold?

14. The figure below is made up of 9 identical squares and has a perimeter of 32 cm. What is the area of each square?

15. The length of the flat bottom of a rectangular cat box is 21 inches. If the perimeter of the box’s flat bottom is 68 inches, what is the area (in square inches) of the cat box’s flat bottom?

16. In a week, Sofia spent 1 3/4 hours less on Math homework than her English homework. If she spent a total of 4 hours and 39 minutes on both English and Math homework, how long (in hours and minutes) did she spend on just English homework?

17. Mrs. Celeste paid $216 for 4 science test kits and 5 chemistry sets. One chemistry set cost 4 times as much as a science test kit. How much did one science kit cost?

18. 4/9 of the fowls in a farm were ducks. The rest were chickens. After 516 ducks were sold, the number of ducks left was half the number of chickens. How many chickens were there in the farm?

Solution is available on May 22, 2020 at www.mathinaction.org