

Math Challenge #15



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

Puzzly Math Problems

Welcome to Math Challenge #15. This is the last one for this school year. These problems are puzzle-like. Read each problem a few times so that you are clear with the information. Devise a plan, use a strategy or a combination of strategies you have learned so far. Ask a friend or a family member if you get stuck.

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.

Problems

Answer

1.	Three birds are hanging out on a cherry tree. Robin was singing about how tasty cherries are. Bluejay heard Robin sing and started eating some cherries. Crow saw Bluejay eating cherries, so Crow also ate cherries. Crow ate 8 more cherries than Robin ate. Bluejay ate 4 more cherries than Crow did. Robin was so busy singing that she ate only 2 cherries. How many cherries did Bluejay eat?	
2.	The children in Mr. Corey's class made puppets for children in St. Jude's hospital. The children made 6 puppets on Monday. They made 10 puppets on Tuesday. On Wednesday, they made 14 puppets. They got better at making puppets and every day they made more than the day before. If they follow the same pattern, how many puppets did they make on Friday?	
3.	Fran and Kev like to eat dumplings. Fran is smaller than Kev, so she eats fewer dumplings than Kev. For every meal, Fran eats 2 dumplings and Kev eats 3 dumplings. Fran just ate her 12 th dumpling. How many dumplings did Kev eat?	
4.	An old sneaker, a cup, a bottle, and a can fell off Captain Hook's dock and dropped to the bottom of the water. Along came a fish, a snail, a crab, and a water snake who were looking for homes. The water snake slithered into the bottle. The crab crawled into the sneaker, and the fish would not go near the can. What did the fish choose for its home?	
5.	Maxim is a magician who is getting ready for a show. Behind the curtain, he has to make up his mind what to put on. He can wear a cape or a coat. On his head, he can wear a bright red wig or a hat. He then can put on his cowboy boots or his red shoes. How many different outfits can Maxim wear for his magic show?	



6. The people in the Land of Few Residents make up their own telephone numbers. The only numerals they use are 1, 2, 3, and 4. Their telephone numbers are two digits long. Their telephone directory looks like the one in the picture.
How many **other telephone numbers** (that are not shown) can be made by the people in the Land of Few Residents?



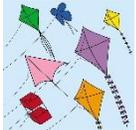
7. On the school newsletter, a teacher put an advertisement as shown in the picture.
Bernard and Dan saw the teacher's ad, so they are bringing a sack of 10 toads and frogs to the teacher. He looks at the animals and then gives the boys \$38. How many animals were toads and how many were frogs?



8. In this puzzle, you must go through a number maze and finish with a total of 100. First you start the maze with zero. You may go **right or down only** at each turn. Find at least one possible route.

START	14	7	13	15
12	9	11	26	21
16	5	12	19	10
13	10	17	24	11
8	20	4	15	FINISH

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12	9	11	26	21
16	5	12	19	10
13	10	17	24	11
8	20	4	15	FINISH

9.  Tim works at the Fly High Kite factory. His job is to check all the kites made in the factory before they are packaged. One day, Tim discovered that for every 30 kites that pass inspection, there were 7 kites that did not pass. Out of those 7 kites, 4 kites were without tails and 3 kites had the wrong colors. Of the 296 kites that Tim inspected, how many did not have tails and how many had the wrong colors?

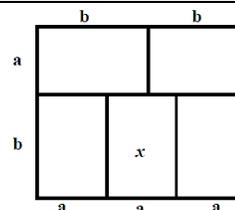
10. Jennifer, Holly, and Saini agreed to meet at the park this Saturday. Jennifer came by skateboard, Holly came by bike, and Saini came on the bus. It took Holly twice as long as Jennifer to get to the park. It took Saini 10 minutes more than it took both Jennifer and Holly. If you sum up the total time it took for them to get to the park, it is 64 minutes. How many minutes did each person take to travel to the park?

Jennifer:

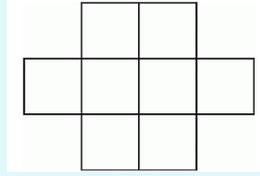
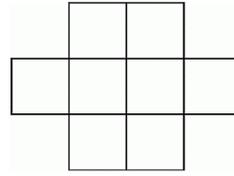
Holly:

Saini:

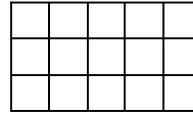
11. The large rectangle is divided into five **congruent (identical)** rectangles. If $a + b = 10$, find the area of the rectangular region labeled x .



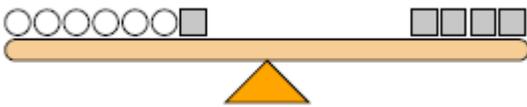
12. This puzzle requires you to place a number from 1 to 8 in such a way that no two consecutive numbers are next to each other horizontally, vertically, or diagonally. For example, if the number 5 is placed at the far-left box, then the 4 and 6 cannot be placed in the box directly right of the 5 or the two boxes that are diagonally above and below the 5.



13. How many squares, of any size, are there in this figure?

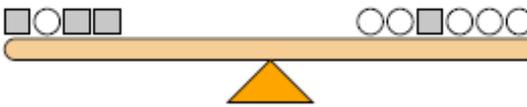


14. The scales below are balanced. Use the scales to answer each question.



- a. If you added 8 circles to the left side, how many squares would you have to add to the right side to keep it balanced?

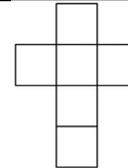
a.



- b. If you added 5 squares to the right side, how many circles would you have to add to the left side to keep it balanced?

b.

15. Write the numbers -6 , -5 , 2 , 3 , 4 , and 7 in the squares so that each horizontal line and each vertical line adds up to 0. What is the number that must be placed at the center?

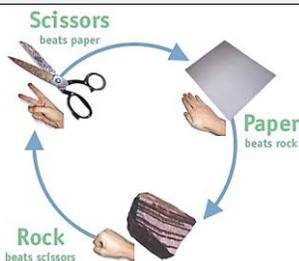


16. The numbers between 1 and 2011 are written on a piece of paper. Logan circles the even numbers with red circles and Nicole circles the multiples of 5 with blue circles. How many numbers are circled with only one color?

17. During a basketball game, the 'Green Goblin' 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 field goals did the Green Goblin team score? (There were no 1-point free-throws.)



- 18.



A girl and a boy play Rock, Paper, Scissors ten times, where Rock beats Scissors, Scissors beats Paper and Paper beats Rock. The boy uses Rock three times, Scissors six times and Paper once. The girl uses Rock twice, Scissors four times and Paper four times. None of the ten games was a tie. How many games has the boy won?