

# Math Challenge #4



First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_ Grade: \_\_\_\_\_  
 Teacher: \_\_\_\_\_ Parent's email: \_\_\_\_\_

## How Much More or How Many More?

Welcome to the Math Challenge #4. Many times, in solving problems, we have to compare. The ability to compare, whether in whole numbers, fractions, or decimals, is an important skill. The math problems in this challenge give you lots of opportunities to compare. Enjoy this challenge and don't forget to ask your parents and siblings to help you solve these math problems.

**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.**

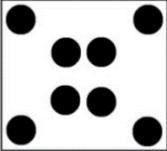
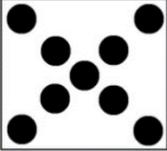
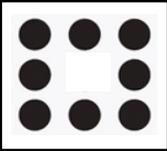
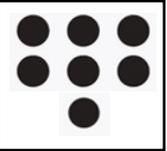
*Answer*

1. Michael draws the following shapes:

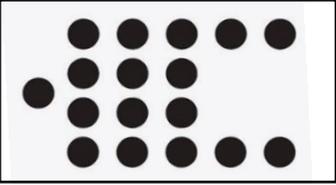
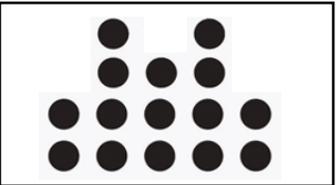


Which shape did he draw the most?

2. Which card has more dots and by how many?  
 Find a way or ways to figure out how many dots in each card without counting one by one.

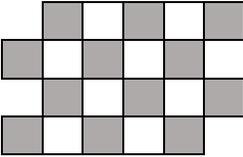
a)        b)  

Card A      Card B      Card M      Card N

c)  

Card S      Card T

a.  
b.  
c.

3.  How many more shaded squares than non-shaded squares are there in the picture?

4. There are 4 rows of smiley faces. Some of the smiley faces are partially covered and fully covered by a splat of ink. How many more smiley faces are covered than the ones that are not covered by the splat?



5.

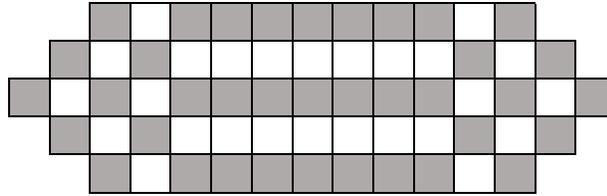


Annie has 25 toy cars and Fran has 32 toy cars. Jack has 4 fewer toy cars than Fran. **Who has more toy cars, Annie or Jack, and by how many?**

6.

**How many more shaded squares than non-shaded squares are there?**

*Hint: think of a way to solve without counting each square one by one.*



7.

Kylee planted 17 roses and 24 tulips. Maya planted 21 roses and 18 tulips. **Who planted more flowers and by how many?**



8.



Karla has 21 more books than Joe. Eric has 15 fewer books than Karla. If Karla has 29 books, **who has more books, Joe or Eric, and by how many?**

9.

Connor and Camilla have some blue and red marbles. Connor has 15 red marbles and some blue marbles. He has 13 more blue marbles than red ones. Camilla has 28 blue marbles. She has 13 more blue marbles than red ones. **Who has more marbles and by how many?**

10.

Max walked 167 meters from his home to the ice cream shop. He then went to the library, walking another 281 meters. **How much shorter or longer in distance did he walk if he walked directly from his home to the library?**



11. This year, Mr. Jekyll is 36 years old.  $\frac{1}{4}$  of his age is equal to  $\frac{1}{3}$  of Mr. Hyde's age. Who is older, Mr. Jekyll or Mr. Hyde, and by how many years?

12.  Kaya paid \$9 for 3 cookies and 5 cupcakes. A cupcake cost three times as much as a cookie. How much more a cupcake costs than a cookie?

13. The length of string A is  $2\frac{1}{4}$  inches longer than string B. String C is  $\frac{1}{2}$  inch longer than string B. The total length of all three strings is 15 inches. Which string is longer, A or C, and by how much longer?

14. Simone and Michelle had 150 tickets to sell altogether. After Simone sold  $\frac{1}{3}$  of her tickets and Michelle sold 35 tickets, they had the same number of tickets left. Who had more tickets at the beginning, Simone or Michelle, and by how many more?

15. The product of the ages of 4 elementary school students is 5040. A is older than B by a year. B is older than C by a year. C is older than D by a year. What are the ages of the students?

16. Paul wanted to make two pumpkin pies for a party. His mother, a professional pie maker, had a recipe for him to use. However, she always made 80 pumpkin pies at a time. Below is her recipe:  
**10 dozen eggs**  
**27 liters of condensed milk**  
**480 tablespoons of sugar**  
**100 teaspoons of cinnamon**  
**140 cups of pumpkin**

Paul looked into the cupboard and found the following:

**4 cups of pumpkin, 2 eggs,  $1\frac{1}{2}$  teaspoons of cinnamon, 0.66L of condensed milk, 15 tablespoons of sugar**

Which ingredients would Paul need to buy to make the two pies?

17. M contains a list of whole numbers from 100 to 1,000 whose digits are either 4 or 8. N contains a list of whole numbers from 1 to 500 that is at the same time a multiple of 7, a multiple of 9, and a multiple of 6. Which has more numbers, M or N? By how much?

18. The Wilkinson family has 5 children. The sum of squares of two of the children's age is 365. The sum of squares of the other 3 children's age is also 365. How much older is the oldest as compared to the youngest?

*Solution is available on November 22, 2019 at [www.mathinaction.org](http://www.mathinaction.org)*

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