

Math Challenge #1



First Name: _____ Last Name: _____ Grade: _____

Teacher: _____ Parent's email: _____

How Many?

Welcome to Math Challenge #1. Counting is the first step on our mathematical journey. Counting is also the first mathematical pattern learners encounter. Learning to add comes as an extension of counting. From counting, learners soon begin to count backwards which is a step towards subtraction. They will also count in twos, fives, and tens (a foundation for multiplication). In this first challenge, we will focus on a very basic question you found in math problems: how many.

Most problems can be solved by drawing a picture/diagram/model. 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 at least 3 problems.
Second and Third Grade: solve at least 7 problems.
Fourth Grade and above: solve at least 12 problems.

Answer

1.	Laura took 6 pieces of strawberry from the refrigerator for snack. She ate three of them and unfortunately dropped one, where it got squashed and was not edible. How many pieces of strawberry does she have left?	
2.	Mrs. Toby bought 3 red apples and 3 green apples. If she used 4 apples to make an apple pie, how many apples are left? 	
3.	Daniel is 3rd in a line for a slice of pizza at the lunch counter. Anna is the 2nd student from the end of the line. If Nina and Maya are the only students lining up between Daniel and Anna, how many students are there in the line at the lunch counter?	
4.	Brie puts 8 chocolate chip cookies onto a plate for her friends. She puts 5 oatmeal cookies onto another plate. Her friends eat 4 cookies. How many cookies are left?	
5.	Mrs. Sarwono ordered two large-sized pizzas. Each pizza was cut into 8 slices. If she ate three slices, how many slices of pizza are left? 	

6.	Tom has twice as many coins as Jonathan. Jonathan has three times as many coins as Neeta. If Neeta has only two coins, how many coins do they have in all?		
7.	There are 4 tables in Cleo’s classroom. She puts 2 packages of crayons on each table. Each package has 8 crayons. How many total crayons are on the tables?		
8.	In my row in the theatre, the seats are numbered consecutively from T1 to T50. I am sitting in seat T17, and you are sitting in seat T39. How many seats are there between us?		
9.	Ken is playing a game. He has 4,289 points. Then he scores another 355 points. Ken’s target is 6,000 points. How many more points does Ken need to reach his target?		
10.	Adam is making booklets. Each booklet must have 34 sheets of paper. He has 2 packets of paper. There are 500 sheets of paper in each packet. How many complete booklets can Adam make from 2 packets of paper?		
11.	A small ink cartridge has enough ink to print 600 pages. Three small cartridges can print as many pages as two medium cartridges can print. Three medium cartridges can print as many pages as two large cartridges can print. How many pages can a large cartridge print? <i>(From MCT PS Gr 4 2016)</i>		
12.	Students from Mrs. Hein’s class are standing in a circle. They are evenly spaced and consecutively numbered starting with 1. The student with number 3 is standing directly across from the student with number 17. How many students are in Ms. Hein’s class? <i>(From MCT PS Gr 4 2016)</i>		
13.	A piece of paper is 0.1 mm thick. How many times must it be folded in half so that the folded paper is more than $\frac{1}{2}$ mm thick? <i>(From MCT PS Gr 5 2016)</i>		

14.	<p>A recent survey of 54 superheroes revealed that 14 of them still wear capes and 41 of them continue to wear a mask. If $\frac{1}{6}$ of all the superheroes wear both a mask and a cape, how many wear neither a cape nor a mask?</p> <p><i>(From MCT PS Gr 5 2016)</i></p>	
15.	<p>Maria has 12 chickens in her chicken coop. Half of the chickens lay an egg every day. The other half lay an egg every other day. How many eggs in total do the 12 chickens lay in a period of 12 days?</p>	
16.	<p>During a weekend, the manager of the mall gave away gift cards to every 40th person who visited the mall on a given day. On Saturday, 1070 people visited the mall, and on Sunday, 1214 people visited the mall. How many people received a gift card?</p>	
17.	<p>Raja grows trees. He plants 8 maple trees and 15 birch trees.</p> <ul style="list-style-type: none"> Each of his maple trees is 4 feet tall when planted and will grow 4 feet during the first year, and half as many feet each subsequent year as the previous year. Each of his birch trees is 10 feet tall and will grow 3 feet during the first year and 3 feet every year thereafter. <p>How many total feet of tree height does Raja have at the end of 5 years?</p>	
18.	<p>The city near Mt. Vernon was planning to hold a tulip festival. In a local park, 4500 tulip bulbs were planted. By April 1st, two-thirds of the 4500 bulbs had bloomed. The next day, two-thirds of the remaining bulbs bloomed. How many bulbs bloomed by the end of the day on April 2nd?</p>	

Solution is available on October 7, 2022
www.mathinaction.org