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

Sharing and Halving

Thanksgiving is upon us. Families celebrate Thanksgiving for a multitude of reasons. For some, it remains a way to express gratitude for the harvest and for family; for others it's a holiday built upon simply being together with family and enjoying delicious food. But for many, Thanksgiving is not only the time to be thankful but also the time to share the blessings we have.

Welcome to the Math Challenge #5. **Sharing** is probably the most common way of thinking about division. It involves sharing an amount equally between groups, one at a time, until there is the same amount in each group. If you are new to division, you can explore sharing and discover how to share things equally. Many times, drawing a picture/diagram/model will help you solve these type of problems. In this math challenge, you will solve problems involve sharing or halving. Let's try to solve as many as you can.

Don't miss the Fall 2021 Math Challenge Tournament on December 11!
Last day to register: Nov 29, 2021

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.	Mei Jie's mom bought 4 cookies. She gave the cookies to Mei Jie and her sister. Each of them will get the same number of cookies. How many will each one get?	
2.	Laura picked 6 roses from the garden. She has 3 vases and she would like to put an equal amount of roses in each of the vases. How many roses are in each vase?	
3.	Ron's mom bought a superhero sticker sheet. There are 8 stickers in the sheet. Ron's mom told him that he can use half of the stickers to decorate his math binder. How many stickers can Ron use to decorate his math binder?	
4.	There are 3 chocolate chip cookies and 6 oatmeal cookies. The cookies will be shared equally between 3 friends. How many cookies will each one get?	

5.	Tim and Jim are twins. They purchase a package of notebooks that has 12 notebooks in it. They split the notebooks equally so each will have the same number of notebooks. Each uses 2 total notebooks for math and science, and one for each of the following subjects: writing, music, and social studies. How many notebooks are not being used yet?	
6.	Mrs. Dorn placed 14 apples in a bowl on the kitchen counter. Angela took 1 apple, Connie took 2 apples, and Fabian took 3 apples. Mrs. Dorn then gave the rest equally to Jenny and Ted. How many apples did Jenny and Ted each get?	
7.	Trisha has $14 and Clarice has $8. How much should Trisha give to Clarice so that each has an equal amount of money?	
8.	Connie got a square box with 16 chocolate pieces in it for Christmas. It was neatly arranged in 4 rows of 4. She took out every piece of chocolate along the sides of the box and shared these pieces among her 6 friends equally. How many pieces of chocolate did each of her friends get?	
9.	At the carnival, Vedah got 18 more tickets than her brother Jon. Vedah gave some of her tickets to Jon so that they both could have the same number of tickets. How many tickets did Vedah give to Jon?	
10.	Mrs. Setiadi has 67 stickers. After giving each of her students 4 stickers, she still has 11 stickers left. How many students does Mrs. Setiadi have?	
11.	For the holiday party, Mr. Toll brought 80 cookies and gave his class of 28 students each 2 cookies. He later gave some of the remaining cookies to the school office and had 5 left for himself. How many cookies did he give to the school office?	
12.	Madi and Shota shared 116 building cubes to make towers. If Shota has 24 cubes more than Madi, how many cubes does Shota have?	

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| 13. | Mihika is sharing a candy rope. The candy rope is 49.5 cm long and is cut into three pieces. The first piece is twice as long as the second one. The third piece is three times as long as the first one. What is the length of the third rope in centimeters? | |

| 14. | A set of Lego pieces can be divided in equal shares among 2, 3, 4, 5, or 6 children with no pieces left over. What is the least number of Lego pieces that the set could have? | |

| 15. | Chun Wie has a jar of gumballs and wants to share them with his friends. He gives half of what he has to his buddy, Jaya. He then gives half of what's left to Marinda. Next, he gives half of what's left to Zelda. His mom makes him give 5 gumballs to his sister. He now has 10 gumballs left. How many gumballs did Chun Wie begin with? | |

| 16. | Mrs. Lockwood has a large amount of flash cards that can be shared among 9 classes equally.
She counted the cards and wrote the number of cards on a piece of sticky note.
The note was unfortunately smudged, and she does not really remember the two middle digits. She does know that the two middle digits were identical.
What could be the two middle digits? | |

| 17. | Jessica and her two sisters bought a cashmere scarf for their mother. The scarf was on sale for 25% off the marked price. She paid a total of $56.70, including a 5% sales tax.
    a. What was the original price of the scarf?
    b. If she split the final cost among the three of them, how much would each person have to pay? | *a.*
b. |

| 18. | Gloria, Hazel and Amir share some stickers in the ratio 3 : 4 : 5. Hazel gives 1/3 of her stickers to Gloria and receives 2/3 of Amir's stickers.
a. What is the ratio of Hazel's stickers to Amir's stickers now?
b. How many stickers does Gloria have now if they have a total of 288 stickers? | *a.*
b. |

Solution is available on December 10, 2021, at www.mathinaction.org