

Math Challenge #4









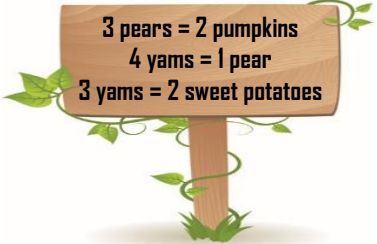

First Name: _____	Last Name: _____	Grade: _____
Teacher: _____	Parent's email: _____	




Fall Season

Welcome to Math Challenge #4. This challenge is centered around the season of Fall, also known as Autumn. Fall and Autumn are used interchangeably to describe the transitional season between summer and winter, with 'Fall' more commonly used in American English, and 'Autumn' considered the more formal term. As we embrace the changing season, we also notice the shifts it brings. There's less planting and more harvesting, and the days grow shorter with more darkness. Let's tackle some math problems inspired by the Fall season.

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.

		<i>Answer</i>
1.	 <p>Emma is collecting colorful leaves during the fall. On Monday, she collects 7 red leaves, 4 orange leaves, and 3 yellow leaves. How many leaves did Emma collect in total?</p>	
2.	<p>Sarah wants to arrange decorative pumpkins in groups of 3.</p> <p>a. If she has 10 pumpkins, what is the greatest number of groups of 3 can she create?</p> <p>b. How many pumpkins will be left over?</p>	 <p style="color: #0070C0; margin-top: 10px;">a.</p> <p style="color: #0070C0; margin-top: 10px;">b.</p>
3.	<p>Shruti's family gathered 9 apples, 4 squash, and 7 peppers from their garden. How many pieces of produce did Shruti's family harvest in total?</p>	
4.	<p>A farmer's field has 5 rows of corn, and each row yields 15 pounds of corn. If he harvests three of the rows, how many pounds of corn does he harvest?</p>	
5.	 <p>Nathaniel's family goes apple picking in an orchard. They collect 14 apples on the first day and 21 apples on the second day. If they give 16 apples to their neighbors and use 8 apples to bake an apple pie, how many apples do they have left?</p>	
6.	<p>Sarah is making pumpkin pies for a fall festival. She needs 3 cups of pumpkin puree for each pie, and she plans to bake 7 pies. If she already has 5 cups of pumpkin puree, how many more cups does she need to make all the pies?</p>	

<p>7. Jeremy is supposed to deliver an Autumn wreath to an office in a ten-story building. He gets on to the fourth floor then realizes that he is on the wrong floor. He then rides to the top floor. He then goes down seven floors, rides up four floors and realizes that he is completely lost. After going down just one floor, he is on the correct floor. To which floor is Jeremy supposed to deliver the wreath?</p>		
<p>8. Emily is baking fall-themed cookies. She bakes a batch of 24 pumpkin-shaped cookies and a batch of 18 leaf-shaped cookies. If she gives away four plates of 8 cookies and a plate of 5 cookies to her neighbors, how many cookies does she have left?</p>		
<p>9. At an apple orchard, three-fourths of the apples are green, one-fifth are red, and the rest are yellow. If there are 300 apples in total, how many are yellow?</p>		
<p>10. The following board shows the trading rules used at Harry's Harvest market. How many pumpkins can Peter get for 8 sweet potatoes at Harry's Harvest market?</p>		
<p>11. The math club held a pie sale to raise some money. They baked 20 apple pies, and each pie they baked cost \$3.00. They also purchased 5 dozen pumpkin pies from a local bakery at a discounted price of \$50 per dozen. They plan to sell each pie at \$10 apiece and keep all profit for their club. If they sell out completely, how much money will they profit? <i>Profit is the difference between the amount earned and the amount spent in buying or producing something.</i></p>		
<p>12.</p> 	<p>A group of hikers plans a trip to see the beautiful fall foliage. They drive 120 miles to a national park. If their car gets 30 miles per gallon of gas and the gas price is \$4.95 per gallon, how much will they spend on gas for the round trip?</p>	
<p>13. A farmer has 75 pumpkins, 100 apples, and 45 green peppers. At a local market, they sell $\frac{2}{3}$ of the pumpkins, $\frac{3}{5}$ of the apples, and $\frac{4}{5}$ of the green peppers. How many total pieces of pumpkins, apples, and green peppers are left after the sales?</p>		

14.	A fruit stand sells apples, pears, and plums during the fall season. The price of each apple is \$0.75, each pear is \$1.25, and each plum is \$0.50. If they sell 90 apples and 50 pears, and earn a total of \$200, how many plums did they sell?	
15.	 <p>Annette’s house, 1850 square feet, stands in the middle of a 40-foot by 60-foot parcel of land. The fall leaves cover the ground all around her house. If it takes Annette’s family 2.5 hours to rake all the leaves, how many square feet of leaves did they rake each hour on average?</p>	
16.	Getting ready for football season, Koji and Salem shopped for some football items. Koji bought two footballs and a helmet that cost him \$60. Salem bought two helmets and a football that cost him \$72. What is the cost of each item?	
17.	 <p>Three individuals went apple picking and gathered a total of 84 apples. When they approached the first apple tree, they each collected an equal number of apples. At the second tree, they each gathered three times the number of apples they had picked at the first tree. At the third tree, they managed to collect only 24 apples in total. If each person picked the same number of apples, how many apples did each person pick at the first tree?</p>	
18.	The Kilstroms traveled to Olympic National Park to view the fall foliage at its peak. The driving time from their home to the park was 2 hours. For the first third of the time, they spent driving to the park, the Kilstroms were in traffic and averaged 66 miles per hour. During the second third of the two hours, they were able to travel at an average speed of 42 miles per hour. For the final third of their trip, the Kilstroms traveled on local roads and drove an average of 30 miles per hour. What is the total distance the Kilstroms traveled to get to the park from their home?	

Solution is available on November 17, 2023
www.mathinaction.org