Math Challenge #1

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

Pizzas and Pies

Welcome to Math Challenge #1. In this math challenge, you will be solving problems involving pizzas and pies. Try to solve more problems than required. Good luck!

Kinder & First Grade: solve <u>at least</u> 3 problems.
Second & Third Grade: solve <u>at least 6</u> problems.
Fourth Grade and above: solve <u>at least 12</u> problems.

		Answer
1.	Grandma Moon ordered 2 large size of pizzas. Each was cut into 8 slices. How many slices were there?	*16 [slices]*
2.	Anna bought 3 berry pies for Pi day. She cut the first pie into 3 slices; she cut the second pie into 4 slices and the third pie into 5 slices. How many slices are there in all?	*12 [slices]*
3.	An extra-large size pizza from Z Planet Pizza are cut into 12 slices. If Tom, Udhay, and Wade share the extra-large size pizza from Z Planet Pizza equally, how many slices each of them will get?	*4 [slices]*
4.	Mrs. Zonk uses 3 apples to bake one of her famous apple pie. She buys 15 apples. How many apples will she have left after she baked 4 apple pies?	*3 apples*

Use the following information to answer problem number 5, 6, 7, and 8.

Mrs. Robertson made four different pies for the School picnic. Each pie was the same size. At the picnic, she cut the blueberry pie into 6 equal slices, the apple pie into 5 equal slices, the peach pie into 6 equal slices, and the chocolate pie into 8 equal slices.

She is raising money for a local charity and selling the pie at $2 per slice.

Blueberry   Apple   Peach   Chocolate

		Answer
5.	How many total slices are there? Total slices: 6 + 5 + 6 + 8 = 25	*25 [slices]*
6.	Gary wants to buy a slice of each kind. How much will it cost him? $2 x 4 = $8	*$8*
7.	Jessica has $10. How many slices of pie can she buy? $10 ÷ $2 = 5 slices	*5 [slices]*
8.	How much will Mrs. Robertson raise for her charity if she sells all pie slices except one slice of the blueberry pie? (25 − 1) x $2 = $48	*$48*

9.	At the football gathering, the Sarwono family ordered 3 large pizzas: one large cheese pizza, one pepperoni pizza, and one large vegetable pizza. 7/8 of the cheese pizza is gone, ¾ of the pepperoni is gone, and 2/3 of the vegetable pizza is gone. What fraction of the pizza is left? Fraction of pizza left: $\frac{1}{8} + \frac{1}{4} + \frac{1}{3} = \frac{17}{24}$	*17/24*
10.	On Monday evening, Mrs. Meatball came home and found out that her family had already eaten 3/4 of the pizza that was delivered. She was hungry and ate 1/2 of what was left. What fraction of the pizza was left over in the box? After the family ate, there were only 1/4 pizza left. She ate 1/2 of 1/4 pizza = 1/2*1/4 = 1/8. The pizza leftover = 1/4 -1/8 = 1/8	*1/8*
11.	Mr. Meatball bought 7 packages of cheese to make pizzas in his restaurant. Each package weighs $5\frac{1}{8}$ pounds. He used 32 pounds of cheese. How much cheese was left? He had: $5\frac{1}{8}$ * 7 = 41/8 * 7 = $35\frac{7}{8}$. The amount of cheese left: $35\frac{7}{8}$ - 32 = $3\frac{7}{8}$ lb.	$3\frac{7}{8}$ *lb.*
12.	A group of friends share slices of pizzas. If each person gets 5 slices, there will be 4 slices short. If each person gets 4 slices, there will be 3 slices left over. How many slices of pizza are there to share? If each person gets 4 slices, there will be 3 left over → look for multiple of 4, plus 3: {…,20+3, 24+3, **28+3**, 32+3, …} If each person gets 5 slices, there will be 4 slices short → multiple of 5, minus 4: {…,25-4, 30-4, **35-4**, 40-5, …} Checking: 7 x 5 -4 = 35 – 4 = 31 slices	*31 [slices]*
13.	Jake, Ron, and Abe had a pie sale to raise money for school supplies. Jake sold 8 more than $\frac{1}{3}$ of all pies. Ron sold 5 more than $\frac{1}{2}$ of the remaining pies. Abe sold the last 12 pies. How many pies were there at the beginning of the sale? ½ of the remaining of pies = 5 + 12 = 17 pies; the remaining pies before sold by Ron was 17x2 = 34 pies, which means 2/3 of the pies was 34 + 8 =42. 3/3 of the pies = 42/2 x 3 = 63 → there must be 63 pies at the beginning.	*63 [pies]*
14.	Peter bought 15 slices of pies and 7 slices of pizzas for $55.25. If each slice of pie cost 2/5 as much as a slice of pizza, what was the total cost of 1 slice of pie and 2 slices of pizzas? A slice of pizza: 5 units A pie (2/5 of pizza): 2 units 15 pies → 15 x2 = 30 units 7 slices of pizzas → 7 x 5 = 35 units. } 65 units → $55.25 Since 65 units = $55.25, 1 unit = $55.25 ÷ 65 = $0.85 Cost of 1 slice of pie: 2 units→ 2 x $0.85 = $1.70 Cost of 2 slices of pizza: 10 units → 10 x $0.85 = $8.50. } Total cost: $1.70 + $8.50 = $10.20	*$10.20*
15.	The ratio of the amount of money Tia had to the amount of money Mia had was 4 : 9. Then Tia spent half of her money on pizzas and Mia spent $20 on pies. Mia now has twice as much money as Tia. How much money did Tia have at first? Before: Tia Mia After: Tia ⟶ $20 Mia Since 5 units = $20, 1 unit = $4, so 4 units = $16. Tia had $16 at first.	*$16*
16.	Two specialty pizzas and a plate of salad cost $39 in all. Three specialty pizzas and three plates of salad cost $69 in all. What is the cost of one specialty pizza? Hint: Think about the cost of one specialty pizza and one plate of salad. Since 3 pizzas + 3 salads = $69, then 1 pizza + 1 salad = $23. Then we can find the cost of 1 pizza: $39 - $23 = $16	*$16*
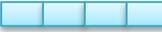
Solution is available on 10/6/2017 at www.mathinaction.org