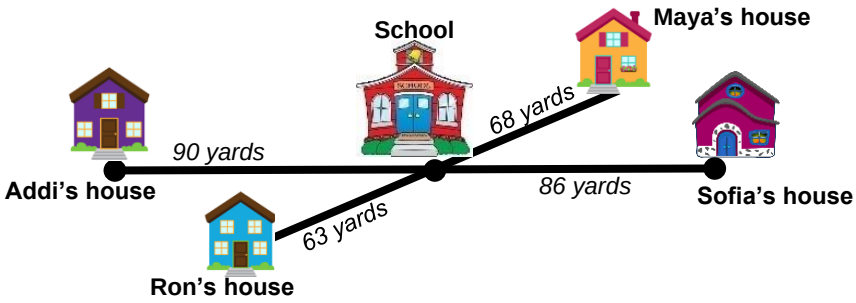
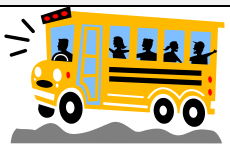
First Name: _____	**Last Name:** _____	**Grade:** _____
Teacher: _____	**Parent's email:** _____	

Transportation

Welcome to Math Challenge #8. In this exciting challenge, we will work on a series of math problems all related to transportation. Whether it is calculating distances traveled by trains, planes, or bikes, or figuring out how long a bus trip will take, these problems will help us apply our math skills to real-world scenarios. Buckle up and get ready for a journey through math and transportation!

Kinder & First Grade: solve <u>at least</u> 3 problems.
Second & Third Grade: solve <u>at least</u> 7 problems.
Fourth Grade and above: solve <u>at least</u> 12 problems.

		Answer
1.	 Order the houses from the closest to the farthest from school.	
2.	Sam is biking from his house to his grandma's house. After biking for 4 miles, he takes a short break. Then, he bikes another 5 miles. If he still has 3 miles left to reach his grandma's house, what is the total distance from Sam's house to his grandma's house?	
3.	A school bus has a driver and 6 students. At each stop, 2 more students get on the bus. How many people are on the bus after 3 stops? 	
4.	 Jeremy biked to the library from his home. On the way there, he stopped by the post office to mail a package. At the library, he checked out a few books then biked back home before dinner time. How far did he bike?	

5. 

A bus leaves the station every 30 minutes. If the first bus leaves at 7:00 AM, what time will the fifth bus leave?

6. 

23 people are going on a camping trip. If each car can hold 5 people, what is the least number of cars needed to fit everyone?

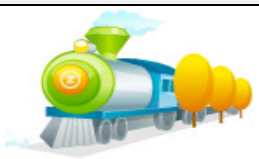
7. The distance around the school running track is 1/3 mile. Michael walked around the track 6 times in the morning and 4 times in the afternoon. How many miles did Michael walk in total?

8. 

City buses leave the main station every 15 minutes starting at 6:00 AM. If you arrive at the main station at 8:12 AM, how many minutes will you have to wait for the next bus?

9. Sarah walks to her friend's house, which is 2 miles away. After walking ¾ of the way, she realizes she forgot something at home and walks back to her house to get it. Then, she walks the full distance to her friend's house. How many miles did Sarah walk in total?

10. A train has 3 passenger cars. If each car holds 58 passengers and each is half full, how many total passengers are on the train?



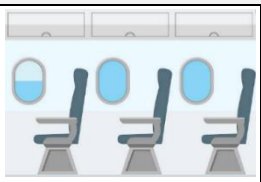
11. 

A car uses 1 gallon of fuel to travel 25 miles. If the car's fuel tank holds 15 gallons, how many miles can the car travel on a half-full tank?

12. 

Leilani and Olivia are in a bike race. Leilani bikes at 10 miles per hour, and Olivia bikes at 12 miles per hour. If they both race for 2 hours, how many miles further does Olivia bike than Leilani?

13. On a certain airplane, the rows are numbered from 1 to 32, but there is no row number 13. Rows 1 through 8 each have 4 passenger seats, while all other rows have 6 passenger seats. How many passenger seats are on this airplane?



14.	Buses on the A Line depart from Station X every 20 minutes and take 35 minutes to reach Station Y. Buses on the B Line depart from Station Y every 30 minutes and take 40 minutes to reach Station Z. There is a bus on the B Line leaving at Station Y at 10 AM. a. If you catch a bus on the A Line at 10:00 AM from Station X, when will you reach Station Y? b. If you catch a bus on the A Line at 10:00 AM from Station X, how long will you have to wait at Station Y to catch a bus on the B Line, and when will you arrive at Station Z?	*a.* *b.*
15.	Ella is biking to her friend's house, which is 30 miles away. For the first 10 miles, she bikes at a speed of 12 miles per hour. Then, she slows down and bikes the remaining distance at 8 miles per hour. How long does it take Ella to complete the entire trip? Express your answer in hours and minutes.	
16.	Bus Route 1 has a bus that departs every 12 minutes, while Bus Route 2 has a bus that departs every 18 minutes. Both buses leave from the same station. a. If both buses leave the station together at 9:00 AM, what time will they next leave the station together again? b. How many times, from 8:00 AM to 11:00 AM, will both buses depart at the same time, considering that both will leave the station at 9:00 AM?	*a.* *b.*
17.	A bus leaves City A at 7:00 AM and travels at an average speed of 50 miles per hour. The bus makes a stop every 30 miles, taking a 10-minute break at each stop. The total distance from City A to City B is 150 miles. At what time will the bus reach City B?	
18.	A plane is flying from New York to Los Angeles, a distance of 2,450 miles. The plane flies at a constant speed of 550 miles per hour for the first part of the trip. After 3 hours, the plane encounters a storm and has to slow down to 465 miles per hour for the rest of the trip. How much longer will it take the plane to reach Los Angeles after slowing down? Express your answer in hours and minutes (rounding to the nearest whole minute).	

Solution is available on January 24, 2025
www.mathinaction.org