Task 1

Four football fans took turns driving from New York to Indiana for the big game. Each driver used cruise control, enabling them to drive at a constant speed. The fans changed drivers each time they stopped for gas and recorded their driving times and distances in the table below.

1. Write each comparison as a ratio.
2. Write each comparison as a rate.
3. Write each comparison as a unit rate.
4. Which fan was driving at the fastest speed?

Fan	Distance (miles)	Time (hours)
Billy	216	4
Luke	468	8
Tyler	350	7
Rocco	265	5

Task 2

Glenn can clean pools at a constant rate of $\frac{2}{5}$ pools/hour.

1. What is the ratio of pools to hours?
2. How many pools can Glenn clean in 10hours?
3. How many pools can Glenn clean in 15 hours?
4. How long does it take Glenn to clean 12 pools?

Task 3

The Stop and Save sells oranges at a rate of 1.25 dollars per orange.

1. What is the ratio of dollars to orange?
2. Jillian is only able to spend $9 on oranges. How many oranges can she buy?
3. How much will it cost to buy 15 oranges?
4. ABC Grocery sells 6 oranges for $7.20. Compared to Stop and Save is this a better buy? Justify your answer.

Task 4

Jasmine earns $7.50 per hour babysitting.

1. If Jasmine babysits for 9 hours, how much money does she earn?
2. If Jasmine babysits for 30 minutes, how much does she earn?
3. If Jasmine babysat for 19.5 hours last month, how much did she earn last month?
4. If Jasmine babysits for one hour everyday after school for one month (assuming there are no vacation days that month), how much will she earn for the month?

Task 5

Determine which is the better buy. Write your answer in a complete sentence and explain why.

1. $15 for 6 pairs of socks or $12 for 5 pairs of socks
2. $4.20 for 6 apples or $5.20 for 8 apples
3. A 13 ounce box of cereal for $3.29 or a 10 ounce box of cereal for $2.69
4. $23.97 for 3 pounds of Best Yet deli ham or $29.96 for 4 pounds of Americas Choice deli ham.

Task 6

Are these rates equivalent?
Explain why or why not.

1. 45 feet for every 9 seconds = 5 feet per second
2. $\frac{140\ cans}{7\ cases} = \frac{24\ cans}{per\ case}$
3. $28 per hour = $168 for every 6 hours
4. $\frac{3\ teachers}{18\ students} = \frac{1\ student}{6\ teachers}$

Task 7

The speed limit is 55 miles per hour. Joshua is driving to a concert that starts in 2 hours.

1. Joshua is 125 miles away from the concert. If Joshua drives at the speed limit, will he arrive in time? Explain.

2. At what rate of speed should Joshua drive so he arrives at the concert on time?

3. After the concert Joshua had to drive a friend home. The friend lives 30 miles from the concert. If Joshua drives at a constant rate of 40mph, how long will it take to drive his friend home?

4. Joshua then drives home from his friends. He travels 93 miles and it takes him 1 hour and 30 min. At what rate of speed was he driving?

Task 8

The Vasquez family is taking an express train to Philadelphia. The total distance of the trip one way is 130 miles. The train travels at a constant speed and makes the trip in 2 hours.

1. What is the rate of speed the train is traveling?

2. Use the unit rate to create an equivalent ratio table.

3. List the ordered pairs from your table.

4. Graph the information from the table on a coordinate plane.

Task 9

Answer the following questions and show your work!

1. An elephant weighs 6 tons. What is the weight of the elephant in pounds?

2. 8 yards is equivalent to how many feet?

3. Shelly has 28 ounces of ham in her refrigerator. She needs 2 pounds of ham to make sandwiches for a small gathering with friends. Does she have enough ham to make all of the sandwiches? Explain.

4. A jet flies at an altitude of 63,360 feet. What is the height of the jet in miles?

Task 10

Answer the following questions and show your work!

1. There are 3 camp counselors for 18 campers at a summer camp. At that rate, how many camp counselors are needed for 30 campers?

2. An order of 5 combs costs $3.50. If each comb costs the same amount, what is the cost for an order of 3 combs?

3. Mrs. Wonderful bought 6 Sharpie markers for $8.40. At this price, how much will 4 Sharpies cost? How much for 10?

4. An artist uses 4 tubes of white paint for every 6 tubes of black paint to paint a mural. At this rate, how many tubes of white paint are used if 9 tubes of black paint are used?