Fraction mixed operations word problems

1. Thomas decides to go on a vacation. He can go on leave for $\frac{2}{3}$ of a month. Assume a month is 30 days, how many days of vacation can he have?

2. Thomas decides on a destination for his vacation. If he takes the train there, it will take him $5\frac{1}{8}$ hours to get there. If he takes the plane, it will take him $2\frac{2}{3}$ hours. How many hours does the plane save?

3. Thomas decided to take the plane to save some time. Unfortunately, the plane was delayed for $1\frac{5}{6}$ hours. How long did the trip finally take?

4. Thomas rents a car for his vacation. The mileage included with the rental is 54 miles. For every mile he drives over 54 miles, he needs to pay 1\frac{4}{5}$. If he drives 69 miles, how much extra does he need to pay?

5. Thomas buys 6 souvenirs for his friends and family. Each gift takes up $\frac{1}{15}$ of his suitcase. If he has two suitcases, how much room is left for his own belongings in his suitcases?

6. On his way back, Thomas took the train. The distance travelled by the train is 328 miles. What is the average speed of the train?

Answers

1. $\frac{2}{3} \times 30 = 20$

    He can have 20 days of vacation.

2. $5\frac{1}{8} - 2\frac{2}{3} = 2\frac{11}{24}$

    The plane takes $2\frac{11}{24}$ hours shorter.

3. $2\frac{2}{3} + 1\frac{5}{6} = 4\frac{1}{2}$

    The trip finally took $4\frac{1}{2}$ hours.

4. $(69 - 54) \times 1\frac{4}{5} = 27$

    Thomas needs to pay $27 extra.

5. $2 - 6 \times \frac{1}{15} = 1\frac{3}{5}$

    $1\frac{3}{5}$ of his suitcase is left for his own belongings.

6. $328 \div 5\frac{1}{8} = 64$

    The average speed of the train is 64 miles per hour.