SYSTEM OF EQUATIONS-WORD PROBLEMS #1

Directions: Find the answers to each situation below by setting up and solving a system of equations.

1) Jacob bought some tickets to see his favorite singer. He bought some adult tickets and some children’s tickets, for a total of 9 tickets. The adult tickets cost $10 per ticket, and the children’s tickets cost $8 per ticket. If he spent a total of $76, then how many adult and children’s tickets did he buy?

\[ a + c = 9 \]
\[ 10a + 8c = 76 \]

2) Sophia’s school took a field trip. A total of 21 vehicles were needed for the trip. Some students took the bus, and some students car-pooled. There were 30 people on each bus and 4 people in each car. 318 people altogether attended the trip. How many buses and cars were needed for the trip?

\[ b = \]
\[ c = \]

3) Ethan’s football team scored a total of 35 separate times this season, with a mix of touchdowns and field goals. Each touchdown is worth 7 points, and each field goal is worth 3 points. If the team scored a total of 193 points this season, how many touchdowns and field goals did they score?

\[ t = \]
\[ f = \]

4) Emma went to the movie theater for her birthday. A mix of adults and children attended, making a total of 19 people. Each adult ticket was $9 and each child’s ticket was $5.50. If the total cost for the party was $150, then how many adults and how many children attended?

\[ a = \]
\[ c = \]

5) Noah’s class held a food drive for the holidays. There are a total of 25 students in his class. On average, each boy and each girl brought in 3 cans of food apiece. If the class brought in a total of 75 cans of food, how many boys and how many girls are in the class?

\[ b = \]
\[ g = \]

6) Olivia’s family drove to Disney Land for spring break. Her mom and dad shared the driving duties for a total of 14 hours. Her mom drove 65 miles per hour, and her dad drove 60 miles per hour. If they drove a total of 895 miles, how many hours did each person drive for?

\[ m = \]
\[ d = \]