Ratios, Rates, Percents, and Proportion

Subjects	Totals
Math	25
LA	30
Science	25
Social studies	20
Total	100

4. Brooke, Sondra, and Thomas made the following statements based on Mr. Netkovick's survey. Which statements are accurate? **Explain** how you made each decision.

   a. Students prefer Social Studies to Math by a ratio of 4 to 5.

   Yes 20 to 25 is 4 to 5

   b. 20% of the players prefer LA.

   No 30/100 is 30%, not 20%

   c. More than half of students like either Social Studies or Science.

   NO 20+25 is 45, which is not more than 50% or $\frac{1}{2}$

5. So far this year, the Avon Middle School chess team has won 9 matches and lost 7 matches.

   a. What is the fraction of matches won? Matches lost?

   9/16 7/16

   b. What is the ratio of matches won to matches lost?

   The ratio is 9 to 7

   c. What is the difference between matches won and lost?

   AMS won two (2) more than they lost

   d. What percent of matches has the team LOST? WON? Round answers to the nearest whole percent. 44% 56%

   e. If they continue at the same pace and win 45 matches, how many will they have lost? Hint: Use proportions!

$$\frac{9}{7} = \frac{45}{x}$$

$\times 5$ $\times 5$

35