System of Equations with 3 Variables Word Problems

Name:_____   Period:_____

Directions: Solve each word problem by identifying the variables, setting up 3 equations, solving them, finding the other answers, and answering the question with a complete sentence.

1. The local performance center had 3 performances of a children's play. For the first performance, they had 78 adults, 94 children, and 30 senior citizens, making $956.50. On the second performance, they made $1164.75 with 86 adults, 120 children, and 45 senior citizens attending. The last performance had 57 adults, 80 children, and 15 senior citizens and they made $718.25. What was the cost of each ticket?

2. In the 2013-14 basket season, Kevin Durant scored 2593 points on 1552 shots. Some were 3-point baskets, some were 2-point baskets, and the rest were fouls shots, worth 1 point. He made 46 more foul shots than he did 2-point baskets. What was his point distribution between the 3 different shots?

3. In a souvenir shop, Jodi purchased 2 small picture frames and 1 large one for $28. Mike bought 3 medium-size frames and 2 large ones for $56. Shelly bought a small, a medium, and a large frame for $30. How much does each size of frame costs?