Algebra 1 -- Module 1: Functions

F – 2.4: Homework -- Review

Name _____

Pd _____   Date _____

Part I: Carla's Fundraising Efforts

Carla belongs to a cheerleading squad. The cheerleaders need money to go travel to Las Vegas for a national competition. To raise funds, Carla will collect recyclable plastic bottles and soda cans and redeem them for money. Carla has been tracking her fund-raising progress. Let $T(d)$ represent the amount of travel funds Carla has been able to raise by the end of dth day of the school year, where $d = 1$ represents the first day of school. The table below is a record that Carla has kept through the first few months of school.

d	T(d)
15	15
25	50
30	250
45	250
50	350
60	400

1. What is the value of $T(30)$ and what does it represent in context?

2. How much money did Carla raise in the first 45 days?

3. How long did it take Carla to earn her first $50?

4. Carla was told that, by sharing rooms, the hotel cost would only be $350! How long did it take Carla to earn the hotel money?

Part II: Solve the following equations. Show how you determined your answer.

5. $\dfrac{c}{9} + 20 = 15$

6. $2(3x - 5) - x - 6 = 24$

7. $7x - 13 = 4x - 21$