Name:	Date:	Period:

1-4 & 1-5 Enrichment

SHOW ALL WORK

A2. F.BF.A.1 Write a function that describes a relationship between two quantities.

1. The Citation Sovereign is a small jet that can carry up to 2,650 pounds. The number of passengers p and the number of suitcases s that the airplane can carry are estimated by the equation 180 p + 60s = 2650. If 10 people can board the aircraft, how many suitcases can the airplane carry?

2. Jaylen started with *d* dollars in his piggy bank. One week later, Jaylen doubled the amount in his piggy bank. Another week later, Jaylen was able to add \$20 to his piggy bank. At this point, the piggy bank had \$50 in it. What is d? Set up an equation and solve for *d*.

3. Kyla would like to give a party bag to every person who is coming to her party. The cost of the party bag is \$7 per person. Write an inequality that describes the number of people *P* that she can invite if she has *D* dollars to spend on party bags.

4. Edmundo takes a job translating English materials to Spanish. He will receive \$15 per page plus \$100 per month. He would like to work for 3 months during the summer and make at least \$1500. Write and solve an inequality to find the minimum number of pages Edmundo must translate in order to reach his goals.

5. The sample below shows how Adrian solved an inequality. Study the solution and determine if it is correct. If it is correct, explain your reasoning. If it is not correct, state the error and correct the mistake.

$$10 < -2x + 4 < 16$$

 $6 < -2x < 12$
 $-3 < x < -6$