NJCU Math 205 Summer 2010 Homework #5

1. A cabinet, 4 chairs, and 2 tables cost $825. The cabinet costs 3 times as much as a chair. The table costs $120 more than a chair. What is the cost of the cabinet?

2. Mrs. Sanders had 80 coins. Some of them were 1-dollar coins, and the rest were 50-cent coins. The total amount added up to $50. How many coins of each kind were there?

3. Aaron and Henry had 52 grapes. If Aaron ate 11 grapes and gave 5 grapes to Henry, he would have 19 fewer grapes than Henry. How many grapes did Henry have in the beginning?

4. In a shop, there are 25 bicycles and tricycles. There are 63 wheels in all. Find the number of bicycles and tricycles in the shop.

5. A manager bought some stamps. She gave $\frac{1}{3}$ of them to a cashier and $\frac{1}{5}$ of them to her secretary. If the secretary received 40 fewer stamps than the cashier, how many stamps did the cashier receive?

6. Zoe, Minh, and Jake sold some tickets for a school fundraiser. Each ticket cost $2. Zoe sold $\frac{1}{2}$ of the tickets. Minh and Jake sold the remaining tickets in the ratio 1:3. If Zoe sold 36 more tickets than Minh, how much money did the 3 students collect altogether?

7. The ratio of the number of muffins Baker A baked to the number of muffins Baker B baked was 8:5. The ratio of the number of muffins Baker B baked to the number of muffins Baker C baked was 4:3. If Baker C baked 150 muffins, how many more muffins did Baker A bake than Baker C?

8. There were 20 more apples in Basket A than in Basket B. Mr. Bell transferred 50 apples from Basket B to Basket A. There were 3 times as many apples in Basket A as in Basket B. How many apples were there altogether?

9. Eduardo had 16 more stamps than Carson. $\frac{1}{2}$ of Carson's stamps were equal to $\frac{1}{4}$ of Eduardo's stamps.
    a. How many stamps did Eduardo have?
    b. After Eduardo gave away some stamps, he had $\frac{3}{8}$ as many stamps as Carson. How many stamps did Eduardo give away?

10. Mrs. Wen bought 500 markers for her students. She gave 8 markers to each girl and 10 markers to each boy. After giving the markers to all the boys and 12 girls, she had 54 markers left. How many more boys than girls were there?

11. After reading $\frac{3}{4}$ of a magazine on Sunday, 0.2 of the remainder on Monday, and 10 pages on Tuesday, Michael still had to read 42 pages of the magazine. How many pages did he on Sunday?

12. The ratio of the number of Aaliyah's pens to the number of Mariah's pens was 2:3 at first. After Dad gave Aaliyah another 16 pens, the ratio became 2:1.
    a. How many pens did Mariah have?
    b. If Mariah gave away 6 pens, what would be the new ratio of the number of Asliyah's pens (after Dad gave her 16 pens) to the number of Mariah's pens?

13. The ratio of the number of Noah's stickers to the number of Jackson's stickers was 12:7. After Noah bought another 28 stickers and Jackson gave away 32 stickers, $\frac{5}{7}$ of Jackson's stickers were left.
    a. How many more stickers did Noah have than Jackson in the beginning?
    b. Find the new ratio of the number of Noah's stickers to the number of Jackson's stickers.

14. The ratio of the number of Alex's beads to the number of Ellie's beads was 3:4. After Alex bought another 72 beads, the ratio became 3:1.
    a. How many beads did Ellie have?
    b. If Alex gave away 80 beads, what would be the new ratio of the number of Ellie's beads to the number of Alex's beads?

Additional problems to work on at the beginning of class on Monday 6/14

15. The ratio of Kwame's age to Derrick's is 3:4. 2 years ago, their average age was 12 years. How old is Kwame now?
16. The ratio of Liam's age to his brother's age is 4:9. Liam is 10 years younger than his brother. How old is Liam now?
17. Joel had 219 marbles in 3 containers – A, B, and C. If he moved 21 marbles from Container A to Container B, 27 marbles from Container B to Container C, and 18 marbles from Container C to Container A, there would be an equal number of marbles in each container. How many marbles were in each container in the beginning?
18. Bella spent $\frac{4}{8}$ of her money on a dictionary and 3 identical books. She spent $\frac{1}{6}$ of the remainder on a journal that cost $7.
    a. How much did she spend on the dictionary and the three books?
    b. If $\frac{3}{8}$ of the cost of the dictionary was the same as $\frac{1}{2}$ of the total cost of 3 books, how much did each book cost?
19. Riley, Benny, and Claudia share a bag of peas in the ratio 4:3:8. If Claudia gives $\frac{1}{4}$ of her share to Benny, Benny will have 14 more peas than Riley. How many peas are there altogether?