Modeling Ratios

Use cubes to represent the ratios in each problem. Draw your models to show your thinking.

Check hints on board as needed. Don't forget to check your answers.

1) The ratio of girls to boys on a soccer team is 5 to 4. If there are 10 girls, how many boys are there?

2) If the ratio of girls to boys changes to 4:3, how many girls are on the team if there are 9 boys?

3) After a long night of begging for candy, I ended up having a decent stash of Almond Joys and Kit Kats in the ratio of 5:3. If I had 40 Almond Joys, how many Kit Kats did I have?

4) At Thanksgiving, my son ate deviled eggs and slices of cranberry sauce in the ratio of 5:3. If If he ate 45 deviled eggs, how many slice of cranberry sauce did he eat?

5a) In the first quarter of the Panthers/Raiders game, Cam gained 30 yards running the ball. If his ratio of passing yards to run yards was 5:6, how many passing yards did he have?

5b.) How many total yards did he have?

6) After eating all of the deviled eggs, my son had horrible gas. He pooted 153 times. If the ratio of stinky to odorless poots was 7:2, how many of his poots were stinky

7) When the Packers played the Panthers 2 years ago, Aaron Rodgers, quarterback of the Packers, threw for 180 more yards than Cam Newton. If the ratio of Aaron's yards to Cam's was 9:5, how many passing yards did each quarterback have?

8) The perimeter of an isosceles trapezoid is 75 centimeters. If the ratio of the sides is 2:4:4:5, what is the length of each side?

9) For her birthday party, Ms. Johnson made 22 quarts of punch using orange juice and ginger ale in the ratio of 9:2. She thought it tasted gross, so she added 2 more quarts of ginger ale. What is the new ratio of orange juice to ginger ale?

10) The ratio of Jennie's money to Billy Joe's money was 8:3. After Jenny spent $45, she had $10 more than Billy Joe. How much money did each student have at first?