Pierre’s Paper

Pierre folded a square piece of paper vertically to make two rectangles. Each rectangle had a perimeter of 39 inches. How long is each side of the original square? What is the area of the original square? What is the area of one of the rectangles?

Shopping with Elise

Elise saved $184. She bought a scarf, a necklace, and a notebook. After her purchases, she still had $39.50. The scarf cost three-fifths the cost of the necklace, and the notebook was one-sixth as much as the scarf. What was the cost of each item? How much more did the necklace cost than the notebook?
Lesson 21: Make sense of complex, multi-step problems, and persevere in solving them. Share and critique peer solutions.

Student ____________________________________  Team ______________  Date _________  Problem 3

The Hewitt’s Carpet

The Hewitt family is buying carpet for two rooms. The dining room is a square that measures 12 feet on each side. The den is 9 yards by 5 yards. Mrs. Hewitt has budgeted $2,650 for carpeting both rooms. The green carpet she is considering costs $42.75 per square yard, and the brown carpet’s price is $4.95 per square foot. What are the ways she can carpet the rooms and stay within her budget?

Student ____________________________________  Team ______________  Date _________  Problem 4

AAA Taxi

AAA Taxi charges $1.75 for the first mile and $1.05 for each additional mile. How far could Mrs. Leslie travel for $20 if she tips the cab driver $2.50?
Lesson 21: Make sense of complex, multi-step problems, and persevere in solving them. Share and critique peer solutions.

Pumpkins and Squash

Three pumpkins and two squash weigh 27.5 pounds. Four pumpkins and three squash weigh 37.5 pounds. Each pumpkin weighs the same as the other pumpkins, and each squash weighs the same as the other squash. How much does each pumpkin weigh? How much does each squash weigh?

Toy Cars and Trucks

Henry had 20 convertibles and 5 trucks in his miniature car collection. After Henry’s aunt bought him some more miniature trucks, Henry found that one-fifth of his collection consisted of convertibles. How many trucks did his aunt buy?
Pairs of Scouts

Some girls in a Girl Scout troop are pairing up with some boys in a Boy Scout troop to practice square dancing. Two-thirds of the girls are paired with three-fifths of the boys. What fraction of the scouts are square dancing?

(Each pair is one Girl Scout and one Boy Scout. The pairs are only from these two troops.)

Sandra’s Measuring Cups

Sandra is making cookies that require $5 \frac{1}{2}$ cups of oatmeal. She has only two measuring cups: a one-half cup and a three-quarters cup. What is the smallest number of scoops that she could make in order to get $5 \frac{1}{2}$ cups?
Lesson 21: Make sense of complex, multi-step problems, and persevere in solving them. Share and critique peer solutions.

Blue Squares

The dimensions of each successive blue square pictured to the right are half that of the previous blue square. The lower left blue square measures 6 inches by 6 inches.

a. Find the area of the shaded part.

b. Find the total area of the shaded and unshaded parts.

c. What fraction of the figure is shaded?