These problems can be done in pairs. The work must be shown on a separate sheet of paper. Each problem that is completed will be given a grade. The work and explanation are each worth 5 points and the answer is worth 2 points for incorrect answer and 3 points for correct answer. Each problem can be done on a separate piece of paper. Each person will be turning in their own work.

**Painting a Barn**

Alexis needs to paint the four exterior walls of a large rectangular barn. The length of the barn is 80 feet, the width is 50 feet, and the height is 30 feet. The paint costs $28 per gallon, and each gallon covers 420 square feet. How much will it cost Alexis to buy enough paint to paint the barn? Explain your work.

**Perfect Purple Paint 1**

Jessica gets her favorite shade of purple paint by mixing 2 cups of blue paint with 3 cups of red paint. How many cups of blue and red paint does Jessica need to make 20 cups of her favorite purple paint?

**Exam Scores**

Alyssa took a math test with 20 questions and she answered 16 questions correctly. In order to get an A, she needs to answer at least 90 percent of the questions correctly.

a. Did Alyssa get an A on this math test? Explain.

b. How many questions would Alyssa need to answer correctly in order to get an A?

c. On the same exam, Alyssa's friend Jessie answered three times more questions correct than incorrect. Who got a higher percentage of the test questions correct, Alyssa or Jessie?

**The Florist Shop**

The florist can order roses in bunches of one dozen and lilies in bunches of 8. Last month she ordered the same number of roses as lilies. If she ordered no more than 100 roses, how many bunches of each could she have ordered? What is the smallest number of bunches of each that she could have ordered? Explain your reasoning.
**Banana Bread**

Leo's recipe for banana bread won't fit in his favorite pan. The batter fills the 8.5 inch by 11 inch by 1.75 inch pan to the very top, but when it bakes it spills over the side. He has another pan that is 9 inches by 9 inches by 3 inches, and from past experience he thinks he needs about an inch between the top of the batter and the rim of the pan. Should he use this pan?

**Puppy Weights**

Below are the 25 birth weights, in ounces, of all the Labrador Retriever puppies born at Kingston Kennels in the last six months.

13, 14, 15, 15, 16, 16, 16, 16, 17, 17, 17, 17, 17, 18, 18, 18, 18, 18, 18, 18, 18, 18, 19, 20

a. Use an appropriate graph to summarize these birth weights.

b. Describe the distribution of birth weights for puppies born at Kingston Kennels in the last six months. Be sure to describe shape, center and variability.

c. What is a typical birth weight for puppies born at Kingston Kennels in the last six months? Explain why you chose this value.

**Movie Tickets**

Hallie is in 6th grade and she can buy movie tickets for $8.25. Hallie's father was in 6th grade in 1987 when movie tickets cost $3.75.

a. When he turned 12, Hallie's father was given $20.00 so he could take some friends to the movies. How many movie tickets could he buy with this money?

b. How many movie tickets can Hallie buy for $20.00?

c. On Hallie's 12th birthday, her father said,

*When I turned 12, my dad gave me $20 so I could go with three of my friends to the movies and buy a large popcorn. I'm going to give you some money so you can take three of your friends to the movies and buy a large popcorn.*

How much money do you think her father should give her?