Name: _____   Date: _____

Lesson 5: 3RC (Reduce, Reuse, Recycle and Compost) – 3RC Math Challenge Homework – Answers

I. Instructions

Each of the following problems is based on real-life data. Use a separate piece of paper to solve the problems. *Show your work* and include labels on your answers.

1. It takes 26 recyclable plastic soda bottles to make one polyester suit. *(Did you know this is possible? ☺)* How many bottles will be needed to make one dozen suits? **312 plastic soda bottles**	6. Every hour Americans throw away 2.5 million plastic bottles. How many plastic bottles are thrown away in one day? **60 million plastic bottles**
2. Americans throw away about 18 million disposable diapers per year. How many diapers are thrown away each month? **1.5 million diapers (1,500,000 diapers)**	7. Approximately 240 million tires are discarded per year in the U.S. How many tires is that per month? **20 million tires**
3. One 15-year old tree makes enough paper for only 700 grocery bags. A busy grocery store can hand these out in about 1 hour. How many bags will this busy store hand out in 8 hours? How many 15-year old trees will it take to make all these bags? **5,600 grocery bags, 8 trees**	8. Recycling about 120 pounds of newspaper will save one tree. If a community recycles 200 tons of newspaper per year, how many trees are they saving? **3,000 trees**
4. About 70 billion beverage cans were used in 1985. 94% of those cans were aluminum. What is the actual number of aluminum cans that were used? **65.8 billion cans**	9. The amount of energy that it requires to make 2 brand new aluminum cans is the same amount of energy required to make 20 recycled aluminum cans. If a company has enough energy to make 500,000 brand new cans, how many recycled cans can they make instead? **5 million cans**
5. One hundred fifty-four million tons of trash is produced in the U.S. in one year. Half of this trash is recyclable. How many tons of trash is *possible* of being recyclable in one year? **77 million tons of trash**	10. One hundred fifty-four million tons of trash is produced in the U.S. in one year. Only about 13% of this trash actually gets recycled. How much trash is *actually* recycled in the U.S. each year? **20,020,000 tons of trash**