

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.

<p>1. It takes 26 recyclable plastic soda bottles to make one polyester suit. (<i>Did you know this is possible?</i> 😊) How many bottles will be needed to make one dozen suits?</p> <p><b><u>312 plastic soda bottles</u></b></p>	<p>6. Every hour Americans throw away 2.5 million plastic bottles. How many plastic bottles are thrown away in one day?</p> <p><b><u>60 million plastic bottles</u></b></p>
<p>2. Americans throw away about 18 million disposable diapers per year. How many diapers are thrown away each month?</p> <p><b><u>1.5 million diapers (1,500,000 diapers)</u></b></p>	<p>7. Approximately 240 million tires are discarded per year in the U.S. How many tires is that per month?</p> <p><b><u>20 million tires</u></b></p>
<p>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?</p> <p><b><u>5,600 grocery bags, 8 trees</u></b></p>	<p>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?</p> <p><b><u>3,000 trees</u></b></p>
<p>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?</p> <p><b><u>65.8 billion cans</u></b></p>	<p>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?</p> <p><b><u>5 million cans</u></b></p>
<p>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 <i>possible</i> of being recyclable in one year?</p> <p><b><u>77 million tons of trash</u></b></p>	<p>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 <i>actually</i> recycled in the U.S. each year?</p> <p><b><u>20,020,000 tons of trash</u></b></p>