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| **Cutting Bracelet String- 6.NS.1** |
| **Domain** | **The Number System** |
| **Cluster** | **Apply and extend previous understandings of multiplication and division to divided fractions by fractions.** |
| **Standard(s)** | **6.NS.1** Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi? |
| **Materials** | Activity sheet |
| **Task** | **Cutting Bracelet String**Four girls are cutting string to be used for bracelets. They have 8 1/6 yards of string. Each bracelet uses 2 1/4 feet of string. Part 1:How many bracelets can you make? How much leftover string do you have? Draw a visual fraction model and write an equation to show your work. Part 2:Write an explanation about how you solved the task.  |

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| **Rubric** |
| **Level I** | 1. **Level II**
 | **Level III** |
| * Student uses appropriate solution strategy but does not get the correct answer.
 | 1. Not Yet Proficient
* There are one or two errors.

ORPart 1 is correct but Part 2 is not correct.  | Proficient in Performance * Accurately solves problem
* Part 1: 8 1/6 yards of string equals 24 and ½ feet of string. 24 ½ feet of string will allow you to make 10 bracelets that are each 2 ¼ feet long. There is 2 feet of string left over.
* Part 2: The explanation is clear and accurate for this task.
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| **Standards for Mathematical Practice** |
| **1. Makes sense and perseveres in solving problems.** |
| **2. Reasons abstractly and quantitatively.** |
| 3. Constructs viable arguments and critiques the reasoning of others. |
| **4. Models with mathematics.** |
| 5. Uses appropriate tools strategically. |
| 6. Attends to precision. |
| 7. Looks for and makes use of structure. |
| **8. Looks for and expresses regularity in repeated reasoning.** |

**Cutting Bracelet String**

Four girls are cutting string to be used for bracelets. They have 8 1/6 yards of string. Each bracelet uses 2 1/4 feet of string.

Part 1:
How many bracelets can you make?

How much leftover string do you have?

Part 2:

Write an explanation about how you solved the task.