

**Word Problems with Fraction Division - Step-by-Step Lesson****Lesson 1:**

Tara had a great soccer game! After the soccer game the coach awarded Tara  $\frac{1}{8}$  a bag of licorice to share with her friends. She decided to share the contents of the licorice bag with her teammates Sara and Jessica. How much of the licorice bag will each girl receive?



**Explanation:** We can do this one in a number of ways. Let's do it mathematically first, and then we can do it with visuals.

**Mathematical Method:**

Step 1) Let's see what we know:

- a. Tara has  $\frac{1}{8}$  a bag of licorice.
- b. She will share the contents of the bag with 2 other girls.

That makes 3 girls sharing  $\frac{1}{8}$  a bag of licorice.

Step 2) Think the problem through. This means that each girl will receive

$\frac{1}{3}$  of  $\frac{1}{8}$  a bag of licorice.

Step 3) then multiply

$$\frac{1}{8} \times \frac{1}{3} = \frac{1}{24}$$

The answer is that they will each have =  $\frac{1}{24}$  a bag of licorice.



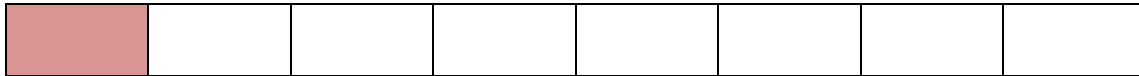
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**Visual Method:**

Step 1) I can draw a series of 8 rectangles that have the first box colored in to represent the  $\frac{1}{8}$  a bag of licorice.

$\frac{1}{8}$



Now, we need to share this among 3 people, so we need to have 3 rows:

$\frac{1}{8}$

$\frac{1}{3}$



This makes 1 out of 24 of the possible grid. This represents  $\frac{1}{24}$  of the bag of licorice.

