

Modeling Div

Name: _____ Date: _____ Period: _____

16

Jaycie is cutting a roll of cookie dough into pieces that are $\frac{1}{4}$ of an inch thick. If the cookie dough roll is $6\frac{1}{2}$ inches long, how many cookies can she make?

<p>1. Put the problem into words. (Write a problem as a question.)</p> <p style="font-size: 1.2em;">$6\frac{1}{2} \div \frac{1}{4}$</p>	<p>How many groups of $\frac{1}{4}$ in are in $6\frac{1}{2}$ in?</p>
<p>2. Make a model.</p> <p>1 box = $\frac{1}{4}$ in = 1 in</p> <p>STEPS:</p> <ol style="list-style-type: none"> 1. Draw and shade 6 $\frac{1}{2}$ to represent how much cookie dough she had. 2. Divide the shaded regions into fourths. 3. Count how many fourths that you have. 26 4. Check your solution to see if it makes sense. <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="margin-right: 20px;"> $\frac{26}{1} \cdot \frac{1}{4} = \frac{26}{4}$ </div> <div> $\begin{array}{r} 4 \overline{) 26} \\ \underline{-24} \\ 2 \\ \underline{-2} \\ 0 \end{array} \quad \begin{array}{l} 6\frac{2}{4} \\ 6\frac{1}{2} \end{array}$ </div> </div>	
<p>3. Write a solution sentence.</p> <p>Using $6\frac{1}{2}$ in of dough, Jaycie can make 26 $\frac{1}{4}$-in cookies</p>	

Questions:

1. Could your model look different?
2. Does this help you understand the algorithm?

Name _____

Date: _____

Period: _____

Modeling the Division of Fractions & Mixed Numbers

Directions: Write a Division Expression for each problem. Use graph paper to model each problem.

Problem

Elsa has $6\frac{1}{4}$ cups of cheese. Each pan of lasagna requires $1\frac{1}{4}$ cups of cheese. Write an expression that could be used to determine the number of pans of lasagna Elsa could make.

Expression:

How many groups of $1\frac{1}{4}$ are in $6\frac{1}{4}$?
 $6\frac{1}{4} \div 1\frac{1}{4}$

Exact answer:

Problem

Luigi has $9\frac{3}{4}$ cups of pizza sauce. Each pizza requires $\frac{3}{4}$ cup of sauce. Write an expression that could be used to determine how many pizzas Luigi could make.

Expression:

Exact answer:

$1\text{ box} = \frac{1}{4}c$

