ANSWER KEY

No Matter How You Slice It

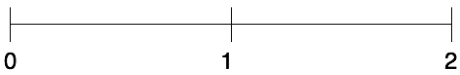
Student Name: _____

Handout 1

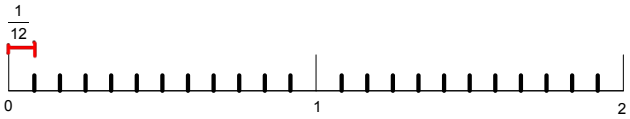
Instructions

The chef was busy making sandwiches for school lunches this morning. While she was making cheese slices, she often had to figure out how many slices she could get out of a block of cheese. For each of these questions, draw a picture and write an explanation of how you answered the question.

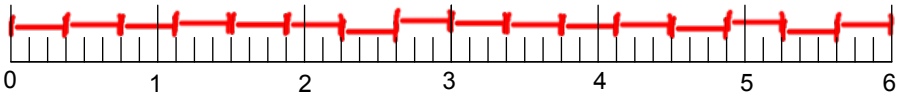
This is a block of cheese that is two inches long.



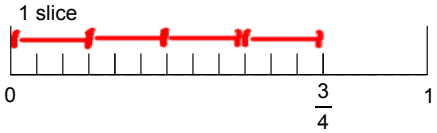
1. How many $^1/_{12}$" slices can the chef make with a block of cheddar that is 2 inches long?
   24 slices.
   Here is a diagram showing 2 inches partitioned into one-twelfths



2. The chef is now making slices of American cheese that are $^3/_8$" thick. If she has a large block of cheese that is 6 inches long, how many slices can she make?
   16 slices. In a number sentence, $6 \div {}^3/_8 = 16$. There will be no remainder.



3. How many $^3/_{16}$" slices will she get from a small block of Gruyère cheese that is $^3/_4$" long?
   4 slices.
   This diagram shows the part of the number line from 0 to $^3/_4$ partitioned into 16ths.



4. Now the chef is making much bigger slices $^2/_5$" thick. She has a block of cheese $1^1/_4$" long.

   a. How many complete slices will she get?

   3 complete slices.

   b. **How thick** is the leftover piece (measured in inches)?

   $^1/_4 - {}^1/_5 = {}^1/_{20}$ inch

   c. **What fraction** of a slice is left over?

   There are $^4/_{20}$ in $^1/_5$, so $^1/_{20}$, the left over piece is $^1/_4$ of a slice.
   Therefore the chef can make $3^1/_4$ slices.

Handout #1 continued on the next page...

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5. How many $^{3}/_{8}$" slices will she get from a block of Swiss cheese that is 5 inches long?

Following a similar process as we followed in #4, $13^{1}/_{3}$

Bonus Puzzler: Can you cut a wheel of cheese into 8 equal parts with three straight slices?