"More Is Less … Or Is It?" and the *Common Core Math Standards*

Third Grade

Number & Operations in Base Ten

Use place value understanding and properties of operations to perform multi-digit arithmetic.[1]

CCSS.MATH.CONTENT.3.NBT.A.3
Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.

(Tommy's Math – p.57)
He multiplied $.20 per ounce times 16. Using his shortcut, he doubled the 16, added a zero to the 32, which resulted in $3.20 per pound. 2 x 16 = 32, add a 0 = $3.20 per pound

Number & Operations - Fractions

Develop understanding of fractions as numbers.

CCSS.MATH.CONTENT.3.NF.A.1
Understand a fraction 1/*b* as the quantity formed by 1 part when a whole is partitioned into *b* equal parts; understand a fraction *a*/*b* as the quantity formed by *a* parts of size 1/*b*.

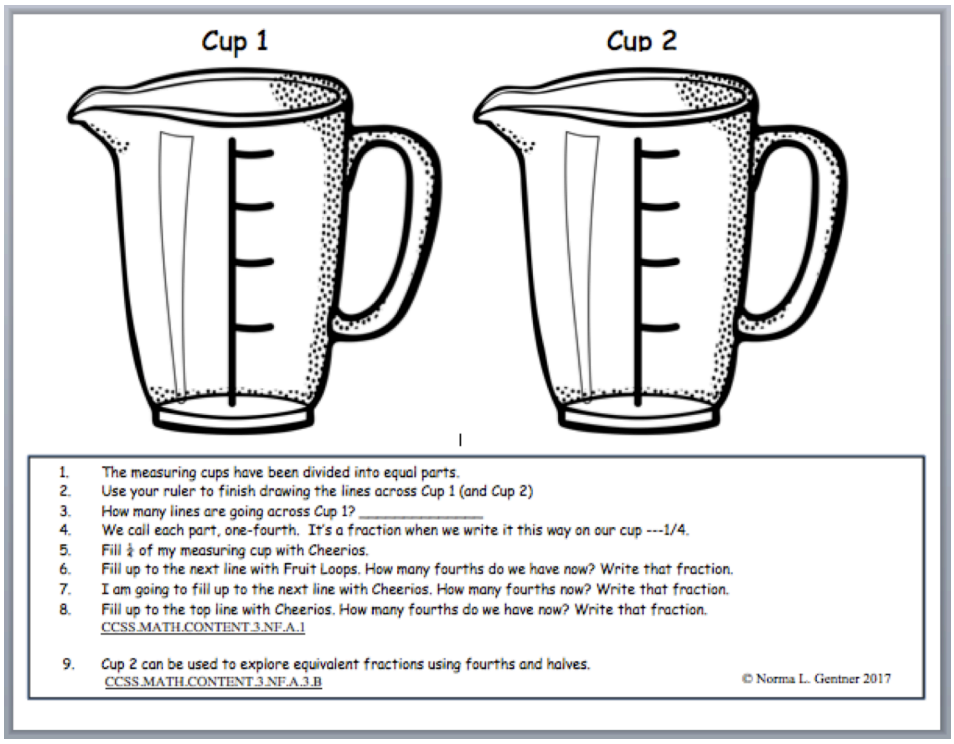
CCSS.MATH.CONTENT.3.NF.A.3

Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

CCSS.MATH.CONTENT.3.NF.A.3.B
Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3. Explain why the fractions are equivalent, e.g., by using a visual fraction model.

CCSS.MATH.CONTENT.3.NF.A.3.C
Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.*

(The above 4 Content Standards can be addressed using the worksheet with Cup 1 and Cup 2. The activity is not only concrete using different cereals and measuring cups, but abstract as well when the students write the fractions of 1/4, 2/4, 3/4, 4/4…1/2, 2/2 on their worksheet.)



Cup 1

Cup 2

1. The measuring cups have been divided into equal parts.
2. Use your ruler to finish drawing the lines across Cup 1 (and Cup 2)
3. How many lines are going across Cup 1? _____
4. We call each part, one-fourth. It's a fraction when we write it this way on our cup ---1/4.
5. Fill $\frac{1}{4}$ of my measuring cup with Cheerios.
6. Fill up to the next line with Fruit Loops. How many fourths do we have now? Write that fraction.
7. I am going to fill up to the next line with Cheerios. How many fourths now? Write that fraction.
8. Fill up to the top line with Cheerios. How many fourths do we have now? Write that fraction.
   CCSS.MATH.CONTENT.3.NF.A.1

9. Cup 2 can be used to explore equivalent fractions using fourths and halves.
   CCSS.MATH.CONTENT.3.NF.A.3.B