Understanding Fractions- One of the Gifts from CCSS

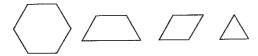
NCTM April 18, 2013



Kit Norris Educational Consultant norriskit@aol.com

Fractions-the Whole Story

Use these pattern blocks



to answer the following questions:

3. If
$$= 1$$
, what is $= 1$

4. If
$$= 1$$
, what is

5. If
$$= 1$$
, what is

6. If
$$= 1$$
, what is $= 3$

Making One!

Use the fraction strips seen in Figure 6.12. Record what you get on EACH roll. When you have covered up the red strip, write down all of the values and show that those fractions equal 1. You may not have to use all of the rolls.

ROUND 1		ROUND 2	
Turn		Turn	
1		1	
2		2	
3		3	
4		4	
5		5	
6	***	6	
7		7	
8		8	
9		9	
10		10	

Write down the fractions you rolled to make 1.

Write down the fractions you rolled to make 1.

blackline master 3.4.

Fraction Strips at Work!

Answer each of the following questions using your fraction strips. Be prepared to defend your answer.

SET A

- 1. What size piece do you get if you take ½ of ½?
- 2. What size piece do you get if you take \(\frac{1}{4} \) of \(\frac{1}{4} \)?
- 3. What size piece do you get if you take ½ of ½?
- 4. What size piece do you get if you take ½ of ½?
- 5. What size piece do you get if you take $\frac{1}{8}$ of $\frac{1}{2}$?
- 6. Write down any patterns that you notice in the preceding problems.

SET B Remember to use your fraction strips!

- 7. How many ½-size strips are in 1 whole?
- 8. How many $\frac{1}{4}$ -size strips are in 1 whole?
- 9. How many $\frac{1}{16}$ -size strips are in $\frac{1}{4}$?
- 10. How many $\frac{1}{8}$ -size strips are in $\frac{1}{2}$?
- 11. What do you notice about the problems in Set B?
- 12. Create one more problem like those in Set A.
- 13. Create one more problem like those in Set B.
- 14. What operation is at work in Set A? Is the same operation working in Set B? Explain your answer.
- 170 From Johnson & Norris, Teaching Today's Mathematics in the Middle Grades. Copyright © 2006 Allyn and Bacon, Pearson Education, Inc.