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SAMPLE MATERIAL

Using the Number Line

Claxton Middle School, Georgia

Topic: National Math Panel: Critical Foundations for Algebra
Practice: Mathematics Preparation for Algebra

This lesson used by seventh-grade teachers at Claxton Middle School is designed to help students understand fractions and decimals through the use of a number line.

Using the Number Line

Graph these numbers on the number line and then answer questions 1 – 4.

$\frac{-1}{7}$, $1\frac{2}{3}$, $-1\frac{6}{8}$, 0, 1.8, $1\frac{2}{5}$, -0.2, -1.2

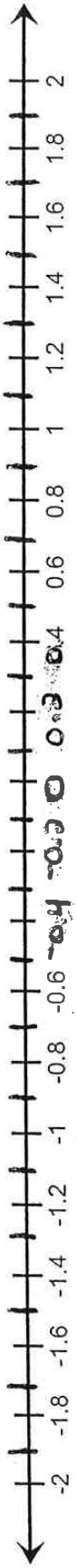
1. How did you scale your number line? Explain why you chose this increment.

2. Which number has the larger absolute value 1.8 or $-1\frac{6}{8}$? How do you know?

3. Look at the fractions and mixed numbers in this list. Which of these numbers, when written as decimals, are repeating decimals? Which form terminating decimals?

Can you tell, without dividing, which fractions will repeat and which will terminate? How do you know?

4. Compare your number line with a partner.
   a. Did you both use the same increment? Is one choice better than the other? Why or why not?

   b. Explain how you placed your numbers. Are your numbers in the same order? If not, decide who is correct and why.

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