





Student Guide

A Different Sieve

- Sift for primes using the *Six-Column 100 Chart* in the *Student Activity Book*. Mark out all the multiples of 2, 3, 5, and 7 following the directions below. Circle all the primes. If a number is a multiple of more than one of the four numbers you checked, it will be marked with more than one color.
 - Since 1 is neither prime nor composite, begin by writing "No" on the number 1.
 - Since 2 is a prime, use one color to circle the number 2. To mark out all the multiples of 2, use this color to lightly shade all the multiples of 2. (*Hint: Use a light color such as yellow.*)
 multiple of 2
 - Using a different color, circle the number 3. Use this color to draw a vertical line (|) through all the multiples of 3.
 multiple of 3
 - Using a third color, circle the number 5. Use this color to write an X on all of the multiples of 5.
 multiple of 5
 - Using a fourth color, circle the number 7. Use this color to draw a horizontal line (-) through all the multiples of 7.
 multiple of 7
- When you are done marking all the multiples of 2, 3, 5, and 7, any number on the chart that is not marked out with one of the four colors is a prime number. Circle all the primes.
- Look carefully at your chart. Write about all the patterns that you see. Identify patterns in primes, composites, factors, and multiples. Describe where you see the patterns on the chart.



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Question 1–2

- * See Figure 2 in the lesson.
- * See Figures 4 and 5 in the lesson.