# The Fundamental Theorem of Arithmetic Challenge

Every integer greater than 1 is either prime or
can be expressed as a unique product of primes.

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**Challenge**
Does this theorem work?
How many numbers can the fifth grade test?

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**Directions**
Each group of three will test the theorem using a different set of
consecutive counting numbers. For each number in your set, you must
determine if it is prime. If it is not prime, then find its prime factorization.

When each group finishes, continue testing another set of numbers. Do not
test numbers that have already been tested.

Each class will continue the work of the previous class. How many
numbers can the fifth grade test?

**\*You may borrow ideas from neighboring groups. If you see a mistake
on someone else's vertical board, discuss it with the other group.**

To start us off …

| Group 1 | Group 2 | Group 3 | Group 4 | Group 5 | Group 6 |
|---------|---------|---------|---------|---------|---------|
| 2 -15   | 16 - 30 | 31 - 45 | 46 - 60 | 61 - 75 | 76 - 90 |