**Repeat or Terminate?**

Generate a table listing in one column the first 20 unit fractions: ½ , 1/3, ¼, 1/5, … , 1/21.

In the second column, find the prime factorization of the denominators of each unit fraction.

Use the third column for the decimal equivalents for each fraction.

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| Fraction | Prime Factorization | Decimal |
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Determine a rule that will tell in advance if the decimal will repeat or terminate.

Test this rule for two fractions (your choice) with denominators beyond 21.

Does this rule apply if the numerator changes?