7.1.6 Terminate or Repeat Extra Practice Name: _____

How do you recognize denominators that will result in a terminating decimal?

Which of these fractions will NOT repeat?

$\frac{4}{30}$ $\frac{11}{200}$ $\frac{73}{15}$ $\frac{6}{45}$ $\frac{975}{256}$ $\frac{386}{600}$ $\frac{92}{80}$

Turn these repeating decimals back into fractions:

$0.\overline{26}$

$0.\overline{123}$

$4.\overline{42}$

$1.03\overline{42}$

$0.0\overline{9876}$

Answers:

How do you recognize denominators that will result in a terminating decimal?
Denominators with prime factorization of only 2's and/or 5's will terminate. Any other factor will make it repeat.

Which of these fractions will NOT repeat?

$\frac{4}{30}$ $\frac{11}{200}$ $\frac{73}{15}$ $\frac{6}{45}$ $\frac{975}{256}$ $\frac{386}{600}$ $\frac{92}{80}$

Turn these repeating decimals back to fractions. Simplify to lowest terms (always!) No mixed numbers (ever!)

$0.\overline{26}$ $\frac{26}{99}$

$0.\overline{123}$ $\frac{41}{333}$

$4.\overline{42}$ $\frac{146}{33}$

$1.0\overline{342}$ $\frac{3413}{3300}$

$0.\overline{09876}$ $\frac{9876}{99990}$