

## Section 10.1 Extra Practice

1. For each of the following decimal numbers, write the part that repeats. Then rewrite the decimal number using bar notation.

Example:

$$0.123123123\dots \quad \underline{123} \quad 0.\overline{123}$$

a)  $0.15151515\dots$  \_\_\_\_\_

b)  $0.621621621\dots$  \_\_\_\_\_

c)  $0.007007007\dots$  \_\_\_\_\_

d)  $0.842842842\dots$  \_\_\_\_\_

2. For each of the following questions, rewrite the repeating decimal numbers with four more decimal places. Then rewrite each decimal number using bar notation.

Example:  $0.818181\dots$        $\underline{0.8181818181}$        $0.\overline{81}$

a)  $0.135013501350\dots$  \_\_\_\_\_

b)  $0.0225225225\dots$  \_\_\_\_\_

c)  $0.7662337662337\dots$  \_\_\_\_\_

d)  $0.28571428571428\dots$  \_\_\_\_\_

For #3 and #4, use the following pattern.

$$\frac{1}{99} = 0.010101\dots, \quad \frac{2}{99} = 0.020202\dots, \quad \frac{3}{99} = 0.030303\dots$$

3. Rewrite the following fractions as decimal numbers, using bar notation.

a)  $\frac{1}{99}$  \_\_\_\_\_      b)  $\frac{2}{99}$  \_\_\_\_\_      c)  $\frac{3}{99}$  \_\_\_\_\_

4. a) What was done to the decimal form of  $\frac{1}{99}$  to get to  $\frac{2}{99}$ ?

\_\_\_\_\_

- b) What was done to the decimal form of  $\frac{2}{99}$  to get to  $\frac{3}{99}$ ?

\_\_\_\_\_

- c) Predict the decimal form for the following fractions.

$\frac{4}{99}$  \_\_\_\_\_       $\frac{21}{99}$  \_\_\_\_\_      Check your answers with a calculator.