

Math 201 Quiz 7 Fall 2009 NAME:

1. One of the two fractions $\frac{13}{125}$ and $\frac{16}{15}$ can be represented as a terminating decimal, the other as a repeating decimal. Explain in detail when a fraction can be represented as a terminating decimal, when as a repeating decimal.

2. Use long division to express the following as a decimal. Show all your work

(a) $\frac{25}{13}$

(b) $\frac{15}{32}$

3. Write the following decimals as fractions. Show all your work.

(a) 12.789

(b) $1.\overline{23}$

4. Explain why there is no whole number a such that

$$\frac{a}{7} = \overline{.2367124}.$$