

Name _____

Date _____

Mr. Tallman

Math 7

Homework # 12 - Converting Between Fractions and Decimals

Convert the following fractions into decimals using long division. Show all work.

1) $\frac{4}{25}$

$$\begin{array}{r} .16 \\ 25 \overline{) 4.00} \\ \underline{25} \\ 150 \\ \underline{150} \\ 0 \end{array}$$

Answer: .16

2) $\frac{7}{9}$

$$\begin{array}{r} .7\bar{7} \\ 9 \overline{) 7.000} \\ \underline{63} \\ 70 \\ \underline{63} \\ 70 \end{array}$$

Answer: .7 $\bar{7}$

3) $5\frac{3}{8}$

$$\begin{array}{r} .375 \\ 8 \overline{) 3.000} \\ \underline{24} \\ 60 \\ \underline{56} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

Answer: 5.375

4) $\frac{6}{8}$

$$\begin{array}{r} .75 \\ 8 \overline{) 6.00} \\ \underline{56} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

Answer: .75

5) $\frac{37}{50}$

$$\begin{array}{r} .74 \\ 50 \overline{) 37.00} \\ \underline{350} \\ 200 \\ \underline{200} \\ 0 \end{array}$$

Answer: .74

6) $\frac{34}{99}$

$$\begin{array}{r} .34 \\ 99 \overline{) 34.000} \\ \underline{297} \\ 430 \\ \underline{396} \\ 340 \end{array}$$

Answer: .34

Convert the following decimals into fractions or mixed numbers in lowest terms.

7) 0.6
 $\frac{6}{10} \div 2$ $\left(\frac{3}{5}\right)$

8) 0.66
 $\frac{66}{100} \div 2$ $\left(\frac{33}{50}\right)$

9) -1.375
 $-\frac{1375}{1000} \div 125$ $\left(-\frac{11}{8}\right)$

10) 0.27
 $\left(\frac{27}{100}\right)$

11) -0.04
 $-\frac{4}{100} \div 4$ $\left(-\frac{1}{25}\right)$

12) 3.127
 $3\frac{127}{1000}$

13) Which of the following fraction converts to a **repeating decimal**?

A) $\frac{4}{25}$

B) $\frac{1}{2}$

C) $\left(\frac{33}{99}\right)$

D) $\frac{1}{10}$