

Fractions and Repeating Decimals

1) Change $\frac{2}{7}$ to a decimal

$$\begin{array}{r} 0.285714 \\ 7 \overline{) 2.000000} \\ \underline{-14} \\ 60 \\ \underline{-56} \\ 40 \\ \underline{-35} \\ 50 \\ \underline{-49} \\ 10 \\ \underline{-7} \\ 30 \\ \underline{-28} \\ 20 \end{array}$$

$$\frac{2}{7} = 0.\overline{285714}$$

2) Change $\frac{4}{11}$ to a decimal.

$$\begin{array}{r} 0.3636 \\ 11 \overline{) 4.0000} \\ \underline{-33} \\ 70 \\ \underline{-66} \\ 40 \end{array}$$

$$\frac{4}{11} = 0.\overline{36}$$

3) Change $0.\overline{57}$ to a fraction

$$\frac{57 \div 3}{99 \div 3} = \frac{19}{33}$$

4) Change $0.\overline{324}$ to a fraction.

$$\frac{324 \div 3}{999 \div 3} = \frac{108 \div 3}{333 \div 3} = \frac{36 \div 3}{111 \div 3} = \frac{12}{37}$$