1. a) \( \frac{1}{4} = 1 \div \_ \_ \)  b) \( \frac{1}{3} = \_ \_ \div \_ \_ \)  c) \( \frac{1}{6} = \_ \_ \div \_ \_ \)

2. a) Explain why \( 24 \div 2 \) is three times \( 8 \div 2 \).  
   b) Explain why \( 3 \div 8 \) is three times \( 1 \div 8 \).  
   c) Explain why \( 3 \div 8 \) is \( 3 \times \frac{1}{8} \).  
   d) Explain why \( 3 \div 8 = \frac{3}{8} \).

3. Use \( a \div b = \frac{a}{b} \) to write the fraction as a decimal. Keep dividing until the remainder is 0.
   a) \( \frac{1}{5} = 1 \div 5 \)  
   b) \( \frac{2}{5} = \_ \_ \div \_ \_ \)  
   c) \( \frac{3}{6} = \_ \_ \div \_ \_ \)  
   d) \( \frac{1}{2} = \_ \_ \div \_ \_ \)  
   e) \( \frac{4}{10} = \_ \_ \div \_ \_ \)  
   f) \( \frac{7}{2} \)  
   g) \( \frac{9}{4} \)  
   h) \( \frac{7}{10} \)  
   i) \( \frac{3}{5} \)  
   j) \( \frac{12}{30} \)

So, \( \frac{1}{5} = 0.\_ \_ \)  
So, \( \frac{2}{5} = 0.\_ \_ \)  
So, \( \frac{3}{6} = 0.\_ \_ \)  
So, \( \frac{1}{2} = 0.\_ \_ \)  
So, \( \frac{4}{10} = 0.\_ \_ \)

4. a) Change the fraction to a decimal using long division. Keep dividing until the remainder is 0.
   \( \frac{1}{8} = 8 \mid 1.000 = ? \)  
   \( \frac{2}{8} = 8 \mid 2.000 = ? \)  
   \( \frac{3}{8} = 8 \mid 3.000 = ? \)
   b) What is the pattern in the decimal equivalents in part a)?
   c) Extend the pattern from part a) to predict the decimals equivalent to \( \frac{4}{8}, \frac{5}{8}, \frac{6}{8}, \frac{7}{8}, \) and \( \frac{8}{8} \).

5. Convert each fraction to a decimal fraction. Then change the fraction to a decimal. Check your answers using a calculator.
   a) \( \frac{3}{40} = \frac{75}{1000} = 0.075 \)  
   b) \( \frac{17}{20} = \frac{100}{1000} \)  
   c) \( \frac{19}{125} = \frac{100}{1000} \)
   \( \text{Check: } 3 \div 40 = 0.075 \) \( \text{Check: } \) \( \text{Check: } \)
   d) \( \frac{13}{25} \)  
   e) \( \frac{3}{5} \)  
   f) \( \frac{351}{500} \)  
   g) \( \frac{39}{200} \)
   \( \text{BONUS } \frac{5}{16} \)