1. Convert as instructed below, if possible; show work. If not possible, say so.

(a) \( \frac{5}{11} \) to a fraction

(b) \( 5 \frac{8}{11} \) to a decimal

(c) \( \pi \) to a fraction

(d) \( \pi \) to a decimal

(e) 3.40844084408... to a fraction
2. Which kind of decimal will a fraction whose denominator is 1638400000 create: a terminating decimal or a repeating one?

3. If a fraction has a denominator of 49 and you convert that fraction to a decimal, what is the longest the repetend could possibly be (i.e., how many digits long), and why?

4. Discuss why long division convinces us that fractions can only correspond to decimals that terminate or that repeat, and never to “growing pattern” decimals or others that never stop and never repeat.