

ACTIVITY # 1:

List 6 (six) different fractions that **you know for sure will terminate** in their decimal representations. Explain how you know. (Please use something other than: $1/2$; $1/4$; $1/5$)

a) _____	b) _____	c) $\frac{?}{10}$	d) $\frac{?}{100}$	e) $\frac{23}{?}$	f) $\frac{23}{?}$
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Your Explanation for above examples (how do you know for sure they will terminate?):

ACTIVITY # 2:

Check BY HAND (not calculators!) if the fractions below are *decimal* fractions. If yes, provide your work as shown in the example. If not, then state “not a decimal fraction” (**Example:** $\frac{3}{25} = \frac{3 \times 4}{25 \times 4} = \frac{12}{100} = 0.12$, **thus $\frac{3}{25}$ is decimal fraction**)

a) $\frac{13}{125}$	b) $\frac{11}{20}$	c) $\frac{7}{15}$	d) $\frac{5}{12}$	e) $\frac{11}{32}$
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ACTIVITY # 3:

Consider the following fractions, try to determine (without doing Activity #2 work) whether the decimal representations of these fractions will repeat or terminate. Explain your reasoning.

a) $\frac{9}{12}$; b) $\frac{28}{125}$; c) $\frac{3}{18}$; d) $\frac{11}{22}$; e) $\frac{3}{5}$; f) $\frac{1}{80}$; g) $\frac{13}{56}$; h) $\frac{3}{48}$; i) $\frac{21}{60}$

Will repeat from the list above (Activity #3):

Will terminate from the list above (Activity # 3):

ACTIVITY #4:

How would you explain to someone your method of looking at any fraction and determining quickly if its decimal representation will terminate or repeat? Be specific, perhaps list the steps (in a specific order) that you do in your head.