

# L30: Repeating Decimals

$$\frac{1}{4} \rightarrow 4 \overline{) 1.00} \begin{array}{r} 25 \\ \underline{8} \\ 20 \end{array}$$

$$\frac{1}{3} \rightarrow \text{decimal}$$
$$3 \overline{) 1.000} = .\overline{3}$$
$$\begin{array}{r} .333 \\ \underline{9} \\ 10 \\ \underline{9} \\ 10 \\ \underline{9} \\ 10 \end{array}$$

$$\frac{1}{6} \rightarrow \begin{array}{r} .166 = 0.\overline{16} \\ 6 \overline{) 1.0000} \\ \underline{6} \phantom{000} \\ 40 \phantom{00} \\ \underline{36} \phantom{00} \\ 40 \phantom{0} \\ \underline{36} \\ 4 \end{array}$$

$$\begin{array}{l} 0.\overline{16} \quad 0.\overline{16} \\ \rightarrow 0.16666\dots \quad \rightarrow 0.161616\dots \end{array}$$

$$\frac{4}{9}$$

$$0.44 = 0.\bar{4}$$
$$9 \overline{) 4.00}$$
$$\quad \underline{36}$$
$$\quad \quad \underline{40}$$
$$\quad \quad \quad \underline{36}$$
$$\quad \quad \quad \quad \underline{4}$$

least  $\rightarrow$  greatest

$$0.3 \quad 0.33 \quad 0.\bar{3}$$

$$0.300$$

$$0.330$$

$$0.333$$

Pop quiz 11/18

HW: 230  
#3, 4, 6-20  
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1.  $\frac{1}{5} - \frac{1}{3} \cdot \frac{4}{5}$

5.  $(m^4)^3$

2.  $7^2 - 6^1 + 5^0$

6.  $\frac{r^2 r^5}{r^3}$

3. expand:  $3(x+12)$

7.  $6.02 \times 10^{10}$   
in standard notation

4. factor:  $x^2 + 6x$

8. 1,023,000,000  
in scientific notation