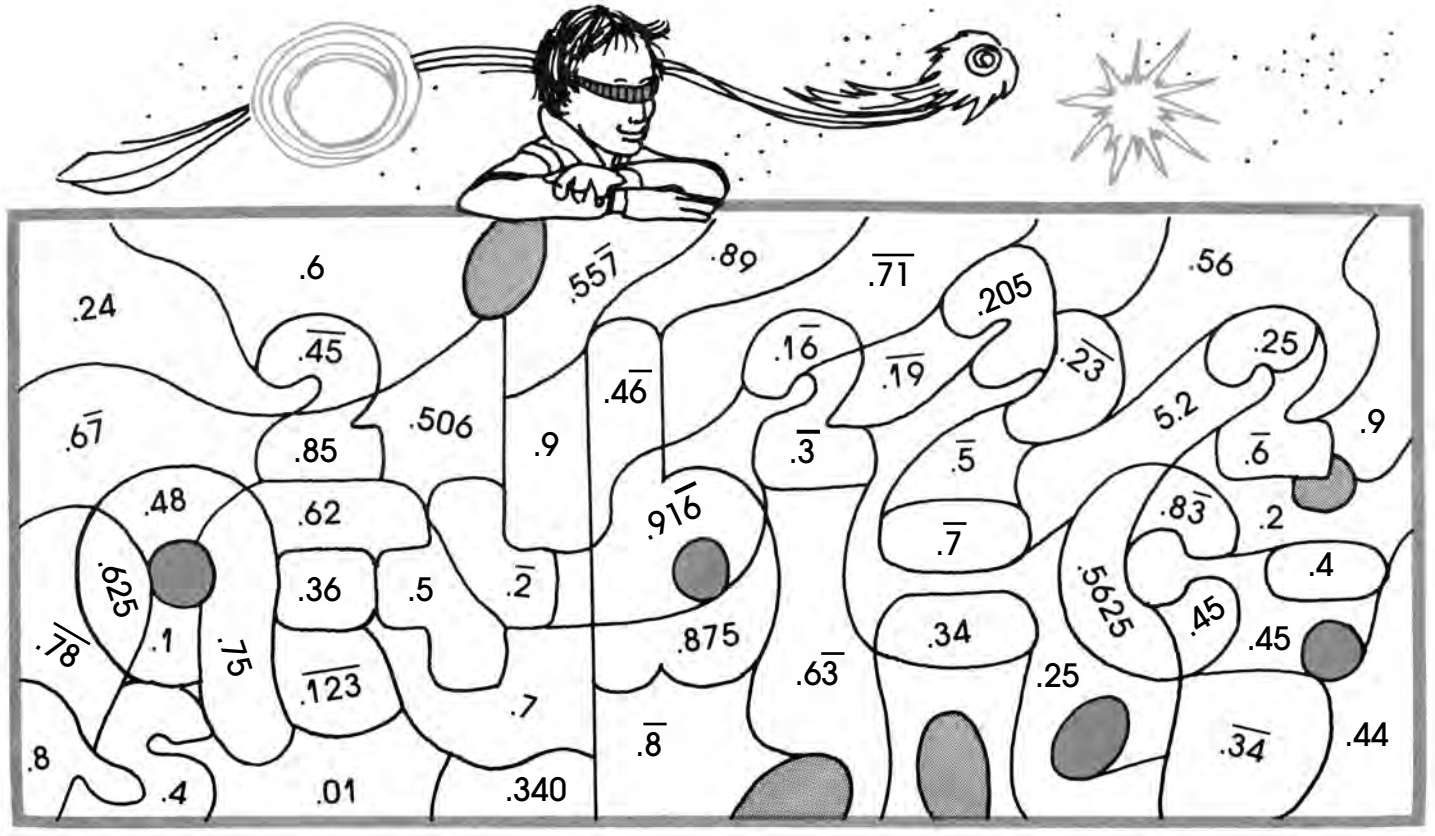
Terminating and Repeating Decimals

Remember

To indicate that a decimal repeats, put a bar over the repeating sequence.

Find the equivalent decimal for each problem. Shade the answers to find a famous theorem.

1. $\frac{3}{4} =$
2. $\frac{1}{3} =$
3. $\frac{5}{8} =$
4. $\frac{2}{9} =$
5. $\frac{11}{12} =$
6. $\frac{17}{20} =$
7. $\frac{3}{18} =$
8. $\frac{12}{25} =$
9. $\frac{7}{14} =$
10. $\frac{17}{50} =$
11. $\frac{5}{6} =$
12. $\frac{2}{3} =$
13. $\frac{1}{4} =$
14. $\frac{7}{9} =$
15. $\frac{7}{15} =$
16. $\frac{9}{20} =$
17. $\frac{7}{8} =$
18. $\frac{1}{10} =$
19. $\frac{5}{11} =$
20. $\frac{9}{16} =$



Write as a terminating decimal.

$\frac{1}{2} =$ $\frac{1}{8} =$

$\frac{1}{5} =$ $\frac{3}{16} =$

$\frac{1}{4} =$ $\frac{3}{8} =$ $\frac{1}{16} =$ $\frac{13}{20} =$

$\frac{19}{25} =$ $\frac{3}{5} =$ $\frac{5}{25} =$ $\frac{7}{16} =$

Write $\frac{5}{8}$ as a terminating decimal.

$\frac{5}{8} = .625$

Write $\frac{2}{3}$ as a repeating decimal.

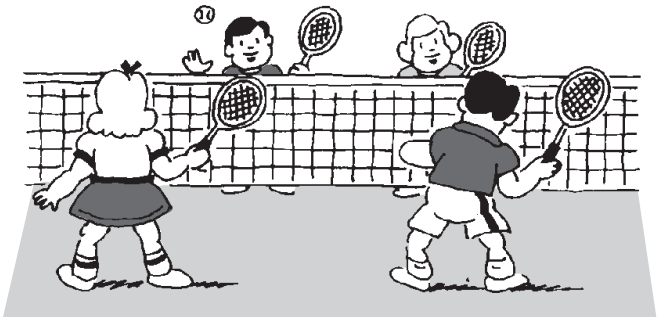
$\frac{2}{3} = .666... = .\overline{6}$

Write as a repeating decimal.

$\frac{5}{6} =$ $\frac{7}{9} =$ $\frac{2}{15} =$ $\frac{11}{12} =$

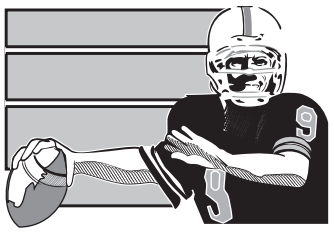
$\frac{1}{3} =$ $\frac{1}{6} =$ $\frac{2}{9} =$ $\frac{7}{11} =$

$\frac{5}{12} =$ $\frac{1}{18} =$ $\frac{5}{9} =$ $\frac{5}{11} =$



Rounding quotients in division.

Divide. Attach zeros in the dividend as needed. Round each answer to the nearest tenth.



$$\begin{array}{r} 21.43 \approx 21.4 \\ 30\overline{)\,643.00} \\ -60 \\ \hline 43 \\ -30 \\ \hline 130 \\ -120 \\ \hline 100 \\ -90 \\ \hline 10 \end{array}$$

$30\overline{)643}$	$35\overline{)267}$		
$72\overline{)456}$	$87\overline{)365}$	$99\overline{)107}$	$56\overline{)202}$
$79\overline{)806}$	$63\overline{)158}$	$24\overline{)837}$	$45\overline{)389}$
$22\overline{)215}$	$81\overline{)964}$	$17\overline{)53}$	$60\overline{)482}$