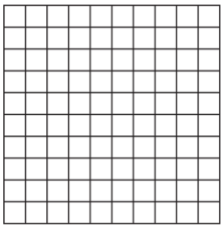
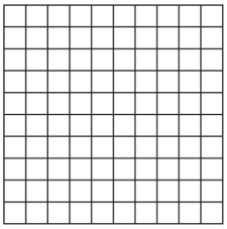
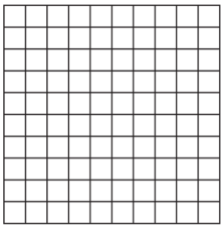
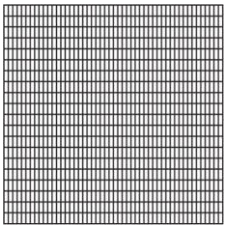
Name ..... Date ..... Class .....

Labsheet 3.3A

Fractions on a Grid

Fraction	Decimal	Representation on a Grid
$\frac{5}{10}$	0.5	
$\frac{20}{100}$	0.20	
	0.02	
$\frac{250}{1000}$		

What are some fractions equivalent to $^{3}/_{10}$?

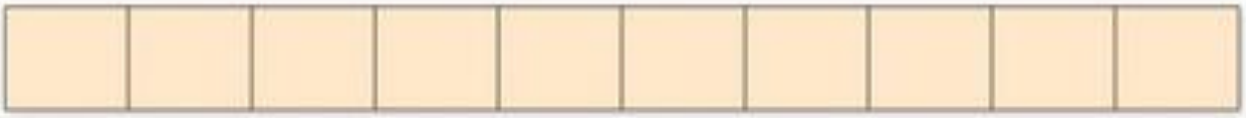
What are some decimals equivalent to $^{3}/_{10}$?

Do 0.20, 0.02, and 0.2 all represent the same number? _____ Explain.

Decimals give people a way to write fractions with denominators of 10 or 100 or 1,000 or 10,000 or even 100,000,000,000, as in the table below. These denominators are different forms of **base ten numeration.**

Fraction	Denominator as a Power of 10	Decimal
$\frac{1}{10}$	$\frac{1}{10^1}$	0. 1
$\frac{1}{100}$	$\frac{1}{10^2}$	0. 01
$\frac{1}{1,000}$	$\frac{1}{10^3}$	0. 001
$\frac{1}{10,000}$	$\frac{1}{10^4}$	0. 0001
$\frac{1}{100,000}$	$\frac{1}{10^5}$	0. 00001
$\frac{1}{1,000,000}$	$\frac{1}{10^6}$	0. 000001
⋮	⋮	⋮
$\frac{1}{100,000,000,000}$	?	?

In Investigation 1, you folded fraction strips. One of the strips you made was a tenths strip, similar to the one shown below.

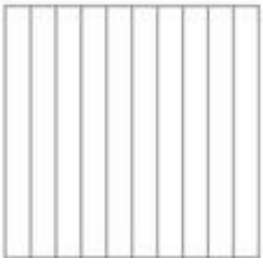


How could you mark this tenths strip to get a hundredths strip?

How would you label each part of this new fraction strip?

A tenths grid is also divided into 10 equal parts. You can further divide a tenths grid by drawing horizontal lines to make 100 parts. This is called a hundredths grid.

Tenths Grid



Hundredths Grid