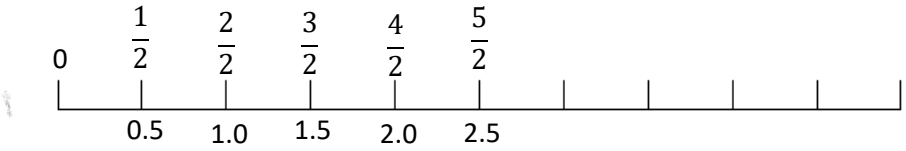
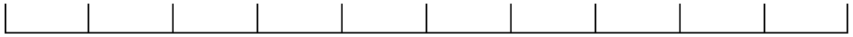
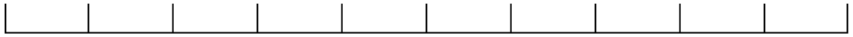
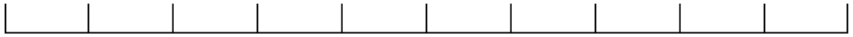
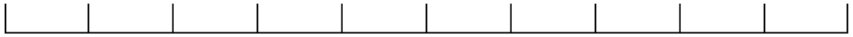
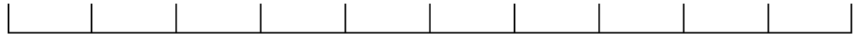
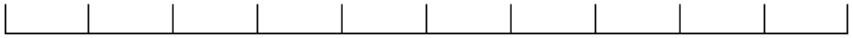
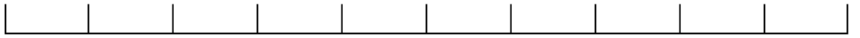
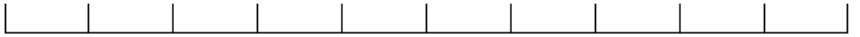
Fraction to Decimal Conversion extensions:

Name: _____

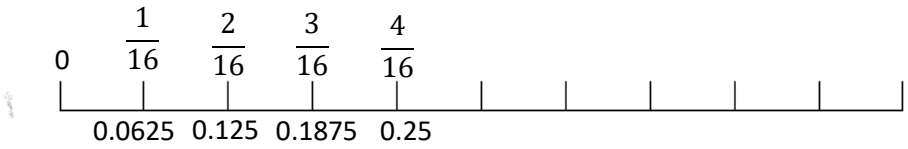
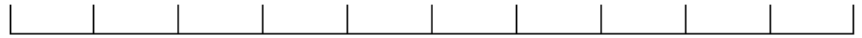
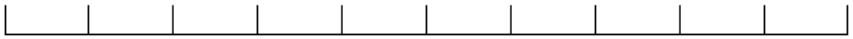
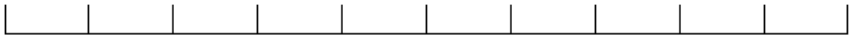
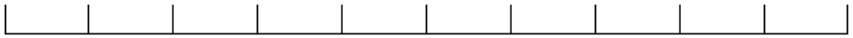
Quick Conversion		**Use your recall of quick conversions, counting, and multiplication to convert these new fractions!**		
Unit Fraction	Decimal:	New Fraction:	Decimal Conversion (words and equations)	Number Line: Record each fraction and decimal between the unit fraction and the new fraction
$\frac{1}{2}$	**0.5**	$\frac{5}{2}$	5 halves are the same as… **5 x 0.5 = 2.5**	
$\frac{1}{10}$		$\frac{3}{10}$		
$\frac{1}{100}$		$\frac{6}{100}$		
$\frac{1}{3}$		$\frac{2}{3}$		
$\frac{1}{4}$		$\frac{7}{4}$		
$\frac{1}{5}$		$\frac{3}{5}$		
$\frac{1}{9}$		$\frac{5}{9}$		

The next set here are harder because the decimal conversions are not so short and simple. However, in some cases they can be simplified if you think about equivalent fractions.

Take a look:

Quick Conversion		**Use your recall of quick conversions, counting, and multiplication to convert these new fractions!**		
Unit Fraction	Decimal:	New Fraction:	Decimal Conversion (words and equations)	Number Line: Record each fraction and decimal between the unit fraction and the new fraction
$\frac{1}{8}$	**0.125**	$\frac{2}{8}$	2/8 is equivalent to ¼ Therefore, 2/8 = 0.25	
$\frac{1}{8}$	0.125	$\frac{3}{8}$	No equivalent fraction. Three eighths are the same as: 3 x 0.125 = 0.375	
$\frac{1}{16}$		$\frac{4}{16}$		
$\frac{1}{8}$		$\frac{4}{8}$		
$\frac{1}{12}$		$\frac{3}{12}$		
$\frac{1}{6}$		$\frac{3}{6}$		

Think: can I find a simpler equivalent fraction?

Quick Conversion		**Use your recall of quick conversions, counting, and multiplication to convert these new fractions!**		
Unit Fraction	Decimal:	New Fraction:	Decimal Conversion (words and equations)	Number Line: Record each fraction and decimal between the unit fraction and the new fraction
$\frac{1}{16}$		$\frac{4}{16}$		
$\frac{1}{8}$		$\frac{7}{8}$		
$\frac{1}{12}$		$\frac{4}{12}$		
$\frac{1}{8}$		$\frac{6}{8}$		
$\frac{1}{12}$		$\frac{6}{12}$		
$\frac{1}{6}$		$\frac{2}{6}$		
$\frac{1}{7}$		$\frac{4}{7}$		

Ridiculous Sevenths??

They do seem ridiculous, it's true. The multiplication likely did not save you time. Why on earth would we get you to memorize such a thing?

Did you notice something weird about the pattern? Take a look:

$\frac{1}{7}$	$\frac{2}{7}$	$\frac{3}{7}$	$\frac{4}{7}$
0.142857	0.285714	0.428571	0.571428

What might be the next in the sequence?

$\frac{5}{7}$	$\frac{6}{7}$
_____	_____

Describe what seems to be going on here:

Finally, know that one of the sevenths is famous! Why? It is as close to π (pi) as one can get in a rational number. What is this famous seventh?

Do a little research and see if you can find out!