

What's the Point?

Name: _____ Class: _____

To write fractions as decimals in Penny Rectangles, you had to use place value. Now, you will write some other fractions as decimals. But, some of these decimals will require more decimal places.

Use the place value chart below to help you write decimals.

Decimal Place Value											
ten thousands	thousands	COMMA (for thousands period)	hundreds	tens	ones	DECIMAL POINT	tenths	hundredths	thousandths	ten thousandths	hundred thousandths
	4	,	7	2	1	.	0	3	8		
10,000	1,000		100	10	1		0.1	0.01	0.001	0.0001	0.00001
$\frac{1}{10,000}$	$\frac{1}{1,000}$		$\frac{1}{100}$	$\frac{1}{10}$	$\frac{1}{1}$		$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1,000}$	$\frac{1}{10,000}$	$\frac{1}{100,000}$

1. Write two different numbers that both have a 7 in the tens place, a 3 in the hundreds place, a 0 in the tenths place, a 4 in the hundredths place, and a 2 in the ones place. The two numbers will need to differ in other places.

a. _____ b. _____

2. Write each number as a decimal.

a. $13\frac{7}{10}$

b. $23\frac{4}{10}$

c. $2\frac{13}{100}$

3. Use what you know about equivalent fractions to write each number as a decimal.

a. $25\frac{1}{2}$

b. $12\frac{3}{5}$

c. $3\frac{8}{25}$

4. How could you write the number 17 so that it has a tenths digit, but still represents the same number?

Conversion Method:

Study the pattern below:

	Pattern I		Pattern II	
○	$4,000 \div 5 = 800$	$\frac{4,000}{5} = 800$	$1,000 \div 8 = 125$	$\frac{1,000}{8} = 125$
	$400 \div 5 = 80$	$\frac{400}{5} = 80$	$100 \div 8 = 12.5$	$\frac{100}{8} = 12.5$
	$40 \div 5 = 8$	$\frac{40}{5} = 8$	$10 \div 8 = 1.25$	$\frac{10}{8} = 1.25$
	$4 \div 5 = ?$	$\frac{4}{5} = ?$	$1 \div 8 = ?$	$\frac{1}{8} = ?$
○				

1. How could you change $\frac{4}{5}$ and $\frac{1}{8}$ to a decimal without using equivalent fractions?

2. Use your method to write each fraction as a decimal.

a. $\frac{5}{8}$

b. $3\frac{3}{8}$

c. $\frac{9}{16}$

d. $\frac{7}{32}$

e. $\frac{13}{40}$

f. $\frac{5}{64}$

Practice. Write each number as a decimal. Show all work.

1. $5\frac{3}{10}$

2. $137\frac{56}{100}$

3. $12\frac{13}{50}$

4. $\frac{7}{8}$

5. $\frac{11}{32}$

6. $3\frac{55}{200}$

7. $\frac{19}{64}$

8. $7\frac{4}{5}$

9. Write twelve thousandths as a decimal and as a fraction in simplest form.

10. The number 0.52 is read "fifty-two hundredths". The 5 is in the tenths place, and the 2 is in the hundredths place. Explain why these place value positions are named as they are.