Name _____ Date _____

1. Express as decimal numerals. The first one is done for you.

a. Five thousandths	0.005
b. Thirty-five thousandths	0.035
c. Nine and two hundred thirty-five thousandths	9.235
d. Eight hundred and five thousandths	800.005
e. $\frac{8}{1000}$	0.008
f. $\frac{28}{1000}$	0.028
g. $7\frac{528}{1000}$	7.528
h. $300\frac{502}{1000}$	300.502

2. Express in words.

a. 0.008 = eight thousandths

b. 15.062 = fifteen and sixty-two thousandths

c. 607.409 six hundred seven and four hundred nine thousandths

3. Write the number on a place value chart then write it in expanded form using fractions or decimals to express the decimal place value units. The first one is done for you.

a. 27.346

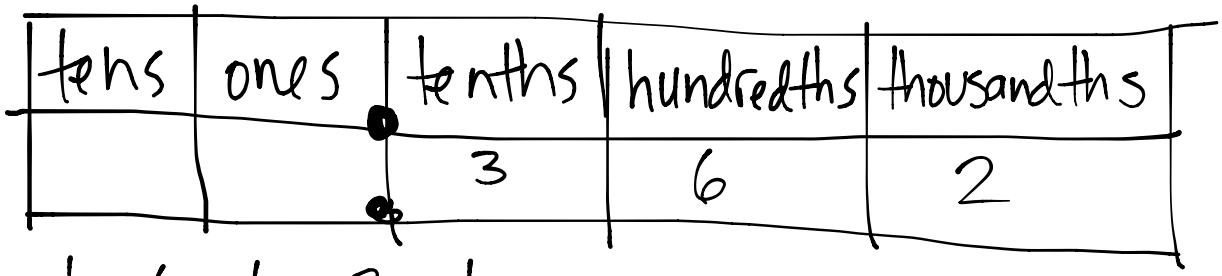
tens	ones	●	tenths	hundredths	thousandths
2	7		3	4	6

$27.346 = 2 \times 10 + 7 \times 1 + 3 \times \left(\frac{1}{10}\right) + 4 \times \left(\frac{1}{100}\right) + 6 \times \left(\frac{1}{1000}\right)$

OR

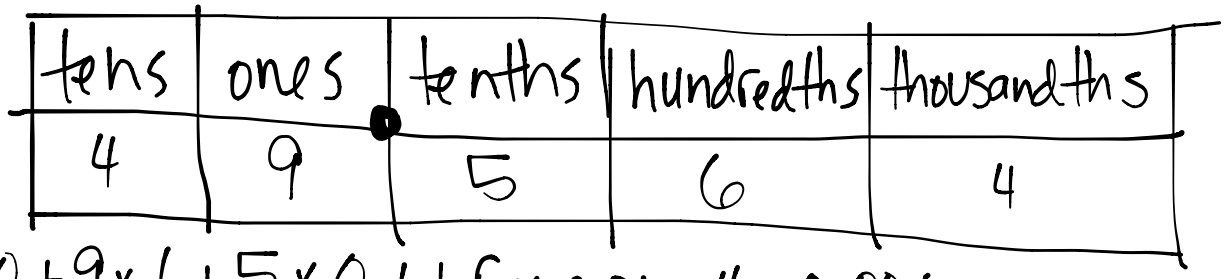
$27.346 = 2 \times 10 + 7 \times 1 + 3 \times 0.1 + 4 \times 0.01 + 6 \times 0.001$

b. 0.362



$0.362 = 3 \times \frac{1}{10} + 6 \times \frac{1}{100} + 2 \times \frac{1}{1000}$

c. 49.564



$49.564 = 4 \times 10 + 9 \times 1 + 5 \times 0.1 + 6 \times 0.01 + 4 \times 0.001$

4. Write a decimal for each of the following. Use a place value chart to help if necessary.

a. $3 \times 10 + 5 \times 1 + 2 \times \left(\frac{1}{10}\right) + 7 \times \left(\frac{1}{100}\right) + 6 \times \left(\frac{1}{1000}\right)$ $= 35.276$

b. $9 \times 100 + 2 \times 10 + 3 \times 0.1 + 7 \times 0.001$ $= 920.307$

c. $5 \times 1000 + 4 \times 100 + 8 \times 1 + 6 \times \left(\frac{1}{100}\right) + 5 \times \left(\frac{1}{1000}\right)$ $= 5408.065$

5. At the beginning of a lesson, a piece of chalk is 2.967 of an inch. At the end of lesson, it's 2.308 of an inch. Write the two amounts in expanded form using fractions.

a. At the beginning of the lesson:

$2.967 = 2 \times 1 + 9 \times \frac{1}{10} + 6 \times \frac{1}{100} + 7 \times \frac{1}{1000}$

b. At the end of the lesson:

$2.308 = 2 \times 1 + 3 \times \frac{1}{10} + 8 \times \frac{1}{1000}$

6. Mrs. Herman asked the class to write an expanded form for 412.638. Nancy wrote the expanded form using fractions and Charles wrote the expanded form using decimals. Write their responses.

N: $412.638 = 4 \times 100 + 1 \times 10 + 2 \times 1 + 6 \times \frac{1}{10} + 3 \times \frac{1}{100} + 8 \times \frac{1}{1000}$

C: $412.638 = 4 \times 100 + 1 \times 10 + 2 \times 1 + 6 \times 0.1 + 3 \times 0.01 + 8 \times 0.001$