



Warm up Grade 6

Date: Nov. 19

1) Write 7.874 025 in

a) written expanded form using decimals

$$7 + 0.8 + 0.07 + 0.004 + 0.00002 + 0.000005$$

b) How would you read 7.874 025

Seven and eight hundred seventy-four thousandths
twenty-five millionths

Homework solutions

Practice

1. Use a place-value chart to show each number.
- a) 2.3425 b) 0.14286 c) 0.0007 d) 0.000298

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousands	Ten Thousandths	Hundred Thousandths	Millionths

a) 2.3425 b) 0.14286 c) 0.0007 d) 0.000298

2. Use the numbers in the table.
- Write the number that has a 5 in:
- a) the ten-thousandths position
b) the millions position
c) the thousandths position
d) the hundred-thousandths position
e) the tenths position

0.635 734
0.506 312
1.003 825
3.702 456
2.184 592

ones
tenths
hundredths
thousandths
ten thousands

3. Describe the meaning of each digit in 4.524371.

The 4 to the left of the decimal point represents 4 ones, the 5 represents 5 tenths, the 2 represents 2 hundredths, the 4 to the right of the decimal point represents 4 thousandths, the 3 represents 3 ten-thousandths, the 7 represents 7 hundred-thousandths, and the 1 represents 1 millionth.

4. Write each number in standard form.

- a) 8 and 26 ten-thousandths
b) 24 millionths
c) 3 hundred-thousandths
d) 4 and 374 millionths

a) 8.0 0 2 6

8.0026
↑
Stop at
ten-thousan
dths

d) 4.0 0 0 3 1 4

4. 0 0 0 3 1 4
↑
Stop



5. Write each number in expanded form. Homework solutions

- a) 0.0056 b) 0.00049 c) 3.000023 d) 0.348619

a) $0.0056 = 0.005 + 0.0006$

c) $3.000023 = 3 + 0.00002 + 0.000003$

6. Write a decimal that is between:

- a) 2.153 and 2.154 b) 0.6534 and 0.6535
 $\underline{2.153}\underline{0}$ $\underline{2.154}\underline{0}$ $\underline{0.6534}\underline{0}$ $0.653\underline{5}\underline{0}$
 $\underline{2.153}\underline{7},$ $0.653\underline{4}\underline{7},$



7. Find two examples of very small numbers in the media.

Write each number in a place-value chart. Explain how you use the patterns in the chart to read these numbers.

8. How are the values of the red digits in each number related?

- a) 5.00005 b) 2.1433 c) 0.67756 d) 4.234654

- c) 6 tenths are 10 000 times as great as 6 hundred-thousandths

9. Write the number in each fact in as many different forms as you can.

- a) A strand of silk in the web of a garden spider has a diameter of about 0.000003 m.
 b) The diameter of one red blood cell is about 0.000762 cm.
 c) The mass of a grain of rice is about 0.00002 kg.



- b) 7 ten-thousandths + 6 hundred-thousandths + 2 millionths

or

$$0.0007 + 0.00006 + 0.000002$$

10. Use any or all of these digits: 1, 0, 2, 0, 4, 0, 5, 0

- a) Write 5 numbers less than one thousandth.
 b) Which of your numbers is the least? How do you know?
 c) Which of your numbers is the greatest? How do you know?

Write each number in standard form

a) 5 and 43 ten-thousandths

5. 0 0 4 3



tells us where your last digit stops

b) seventy-four millionths

0. 0 0 0 0 1 4

↑
stop in millionths

2) Put the decimals in order from largest to smallest

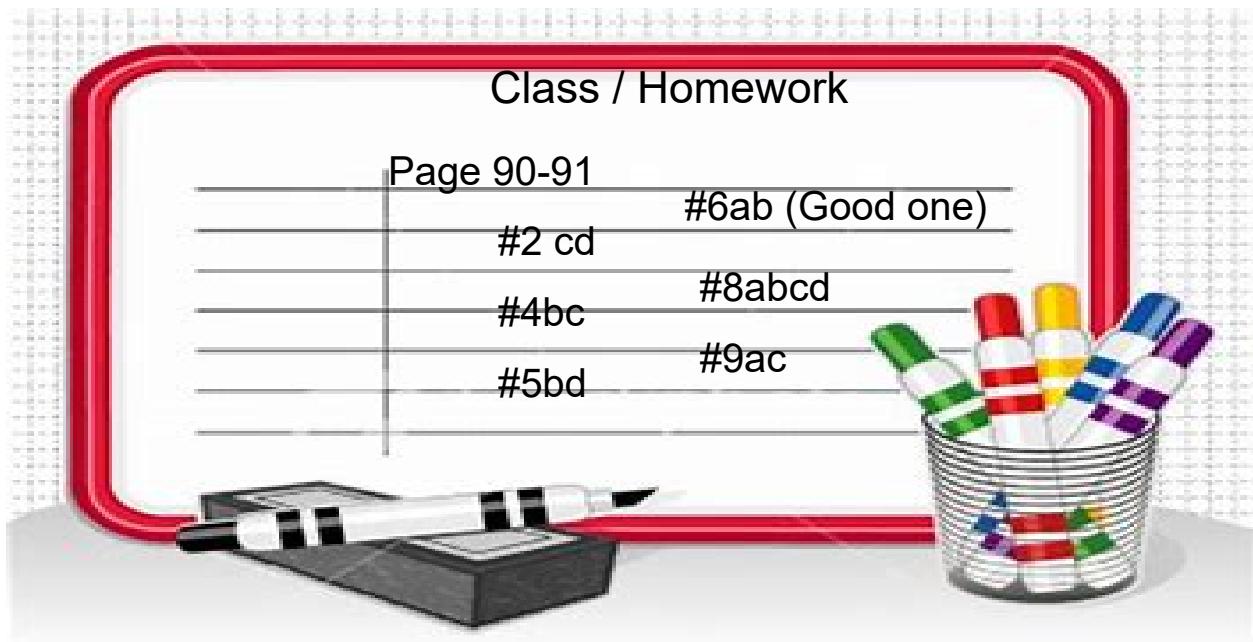
~~0.047~~, 0.0038, ~~0.1025~~, 0.006899
2nd ↑
 1st 3rd
 Biggest



0.1025, 0.047, 0.006899, 0.0038

→ compare place values

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths	Ten Thousandths	Hundred Thousandths	Millionths
						.	.					



Practice

1. Use a place-value chart to show each number.
- a) 2.3425 b) 0.142 86 c) 0.0007 d) 0.000 298

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths	Ten Thousandths	Hundred Thousandths	Millionths

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths	Ten Thousandths	Hundred Thousandths	Millionths

2. Use the numbers in the table.

Write the number that has a 5 in:

- a) the ten-thousandths position
- b) the millions position
- c) the thousandths position
- d) the hundred-thousandths position
- e) the tenths position

0.635 734
0.506 312
1.003 825
3.702 456
2.184 592

3. Describe the meaning of each digit in 4.524 371.

4. Write each number in standard form.

- a) 8 and 26 ten-thousandths
- b) 24 millionths
- c) 3 hundred-thousandths
- d) 4 and 374 millionths

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousands	Ten Thousandths	Hundred Thousandths	Millionths



5. Write each number in expanded form.

- a) 0.0056
- b) 0.000 49
- c) 3.000 023
- d) 0.348 619

6. Write a decimal that is between:
- a) 2.153 and 2.154
 - b) 0.6534 and 0.6535



7. Find two examples of very small numbers in the media.
Write each number in a place-value chart. Explain how
you use the patterns in the chart to read these numbers.

8. How are the values of the red digits in each number related?

- a) 5.000 05
- b) 2.1433
- c) 0.677 56
- d) 4.234 654

9. Write the number in each fact in as many different forms as you can.
- a) A strand of silk in the web of a garden spider has a diameter of about 0.000 003 m.
 - b) The diameter of one red blood cell is about 0.000 762 cm.
 - c) The mass of a grain of rice is about 0.000 02 kg.



10. Use any or all of these digits: 1, 0, 2, 0, 4, 0, 5, 0
- a) Write 5 numbers less than one thousandth.
- b) Which of your numbers is the least? How do you know?
- c) Which of your numbers is the greatest? How do you know?
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