

Explain how you know that the value of the digit 3 in the numbers 403,000 and 400,300 are related by comparing the two numbers.

Answer: 3 in 403,000 has a value of 3,000 because the 3 is in the thousands place
3 in 400,300 has a value of 300 because the 3 is in the hundreds place
 $3,000 > 300$
 $300 \times 10 = 3,000$
 $3,000 \div 10 = 300$

You practice: Explain how you know that the value of the digit 8 in the numbers 708,000 and 700,800 are related by comparing the two numbers:

Exponent Form to Standard Form

$10^0 = 1$
 $10^1 = 10$
 $10^2 = 100$
 $10^3 = 1,000$

Solve:

Answers:

$800 \div 10^3 = 0.8$ moved the decimal left three times
 $0.1345 \times 10^4 = 1,345$ moved the decimal right four times
 $9.634 \times 10,000 = 96,340$ moved the decimal right 4 times

You practice:

$10^4 =$ _____
 $10^5 =$ _____
 $10^6 =$ _____
 $10^7 =$ _____

You practice:

$700 \div 10^3 =$ _____
 $0.248 \times 10^5 =$ _____
 $7.268 \times 1,000 =$ _____

The following equations involve different quantities and use different operations, yet produce the same result. Draw a value chart and use words to explain why this is true.

$3.12 \times 10^3 = 3,120$ $312,000 \div 100 = 3,120$

Answer:

$10^3 = 1,000$ so you need to move the decimal three places to the right because you are multiplying.

Dividing by 100 means you need to move the decimal point 2 places to the left because you are dividing.

You practice:

$5.15 \times 10^3 = 5,150$ $515,000 \div 100 = 5,150$

3	1	2	0	.		
			3	.	1	2

Write **equivalent statements** for eighty-five thousandths:

Answer:

$$(8 \times 0.01) + (5 \times 0.001)$$

$$85/1,000$$

$$0.08 + 0.005$$

You Practice: ninety-seven thousandths

Noah kept a record of how many minutes of TV he watched in a month. His results are shown below. Order the weeks Noah watched TV from the **least** amount to **greatest** amount.

Week 1: 120.876

Week 2: 120.864

Week 3: 119.999

Week 4: 119.099

Answer: Week 4, Week 3, Week 2, Week 1

You practice: Salina kept a record of how many miles she ran each week for a month. Her results are below. Order the weeks from the least amount to the greatest amount.

Week 1: 5.768

Week 2: 5.762

Week 3: 4.29

Week 4: 4.75

Compare the decimals using $>$, $<$, $=$

$$0.74 > 0.69$$

$$0.09 > 0.009$$

$$7.175 > 7.099$$

You practice:

$$0.63 \underline{\quad} 0.60$$

$$0.034 \underline{\quad} 0.4$$

$$77.09 \underline{\quad} 77.89$$

Cole claims that 88.653 is closer to 88.6 than 88.7. Is Cole correct?

No, Cole is not correct. 88.653 rounded to the tenths place would be 88.7 because the 5 would make the 6 move to a 7.

You practice. Junior claims that 55.673 is closer to 55.67 than 55.68. Is Junior correct?

What is 9.5897 rounded to the nearest **thousandth**? 9.590
What is 12.123 rounded to the nearest **tenth**? 12.1
What is 9.039 rounded to the nearest **hundredth**? 9.04

You practice:

What is 7.5878 rounded to the nearest **thousandth**? _____
What is 18.236 rounded to the nearest **tenth**? _____
What is 3.078 rounded to the nearest **hundredth**? _____

Between which two numbers is 4.225 located?

- 4.25 and 4.26
- 4.24 and 4.25
- 4.23 and 4.24
- 4.22 and 4.23 *** this one because 4.225 would round to 4.23

You practice:

Between which two numbers is 6.225 located?

- 6.25 and 6.26
- 6.22 and 6.23
- 6.23 and 6.24
- 6.24 and 6.25

Using the amounts below, how could you show the number 34,725?

1
10
100
1,000
10,000

Answer:
 $(3 \times 10,000) + (4 \times 1,000) + (7 \times 100) + (2 \times 10) + (5 \times 1)$
OR
 $(2 \times 10,000) + (14 \times 1,000) + (6 \times 100) + (12 \times 10) + (5 \times 1)$

You practice: Using the amounts below, how could you show the number 87,429?

- 1
- 10
- 100
- 1,000
- 10,000

Remember – Our place value system is a base 10 system.