Compare and Order Decimals



I Can) use place value to compare and order decimals.

Rea UNLOCK the Problem

The table lists some of the mountains in the United States that are over two miles high. How does the height of Cloud Peak in Wyoming compare to the height of Boundary Peak in Nevada?

Mountain Heights				
Mountain and State	Height (in miles)			
Boundary Peak, Nevada	2.488			
Cloud Peak, Wyoming	2.495			
Grand Teton Peak, Wyoming	2.607			
Wheeler Peak, New Mexico	2.493			



The Tetons are located in Grand Teton National Park.

One Way Use place value.

Line up the decimal points. Start at the left. Compare the digits in each placevalue position until the digits are different.

STEP 1 Compare the o	nes. STEP 2	Compare the te	nths. STEP 3 Compare the hundredths.		
2.495 ↓ 2 = 2 2.488	2.495	5 3 4 ∕ 4	2.495 ↓ 9 8 2.488		
Since 9 8, then 2.495 2.488, and 2.488 2.495.					
So, the height of Cloud Peak is the height of Boundary Peak.					
Another Way Use a place-value chart to compare.					
Compare the height of	Cloud Peak to Whee	ler Peak.			
Ones • Tenths	Hundredths	Thousandths	Mathematical thinking.		
2 • 4	9	5	Explain why it is important to		
2 • 4	9	3	line up the decimal points when comparing decimals.		
2 = 2 $4 = 9 = 5 >$					
Since 5 3, then 2.495 2.493, and 2.493 2.495.					
So, the height of Cloud Peak is the height of Wheeler Peak.					

CHAPTER 3

Florida's B.E.S.T.

Number Sense & Operations 5.NSO.1.4

Mathematical Thinking & Reasoning MTR.2.1, MTR.3.1, MTR.4.1, MTR.5.1, MTR.6.1

Examples

You can use place value to order decimal numbers.

Mount Whitney in California is 2.745 miles high, Mount Rainier in Washington is 2.729 miles high, and Mount Harvard in Colorado is 2.731 miles high. Order the heights of these mountains from least to greatest.

STEP 1

So,

Line up the decimal points. There are the same number of ones. Circle the tenths and compare.

There are the same number of tenths.

- 2.745 Whitney
- 2.729 Rainier
- 2.731 Harvard

STEP 2 Underline the hundredths and compare. Order from least to greatest. 2.745 Whitney 2.729 Rainier 2.731 Harvard Since , the heights in order from least to greatest are Math has the least height and MIR Engage in discussions on **4.1** mathematical thinking. has the greatest height. Explain why you do not compare the digits in the

Try This! Use a place-value chart.

What is the order of 1.383, 1.321, 1.456, and 1.32 from greatest to least?

- Write each number in the place-value chart. Compare the digits, beginning with the greatest place value.
- Compare the ones. The ones are the same.
- Compare the tenths. 4 > 3.

The greatest number is Circle the greatest number in the place-value chart.

• Compare the remaining hundredths. 8 > 2.

The next greatest number is Draw a rectangle around the number.

Compare the remaining thousand ths. 1 > 0.

So, the order of the numbers from greatest to least is:

Ones	• Tenths	Hundredths	Thousandths
1	• 3	8	3
1	•		
1	•		
1 .	•		

thousandths place to order the heights of the 3 mountains.