Place Value Riddles

Aim

- I can identify the value of each digit in numbers given to three decimal places.

Success Criteria

- I can compare decimal numbers.
- I can explain the place value position of decimal numbers using the vocabulary of tenths, hundredths and thousandths.
- I can identify a decimal number by reasoning about the value of each digit.

Decimal Partitioning

When we partition decimal numbers, we split them into their tenths, hundredths and thousandths.

0.123

Look how the number can be partitioned!

0 zero ones

.1 one tenth

.02 two hundredths

.003 three thousandths

Decimal Partitioning

Highlighted, are the decimal numbers which have **4 tenths**:

6.466	2.085	7.79
1.47	1.430	6.255
4.105	9.09	3.585
4.09	4.467	3.47
3.798	2.29	1.225

Decimal Partitioning

Highlighted, are the decimal numbers which have **9 hundredths**:

6.466	2.085	7.79
1.47	1.430	6.255
4.105	9.09	3.585
4.09	4.467	3.47
3.798	2.29	1.225

Decimal Partitioning

Highlighted, are the decimal numbers which have **5 thousandths**:

6.466	2.085	7.79
1.47	1.430	6.255
4.105	9.09	3.585
4.09	4.467	3.47
3.798	2.29	1.225

Decimal Riddles

The emoji is thinking of a decimal number.

- It has come up with five clues to help you identify the decimal number it is thinking of.
- Each clue is based on the place value of the digits.
- Let's see if we can work together to solve the riddle!

The hundredths digit is an odd number greater than 1 and less than 5.

It is a decimal number less than 5 with four digits.

The ones digit is greater than 3.

The hundredths digit is half of the tenths digit.

The ones digit is double the thousandths digit.

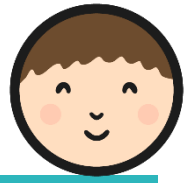
Decimal Riddles

The emoji is thinking of a decimal number.

- It has come up with five clues to help you identify the decimal number it is thinking of.
- Each clue is based on the place value of the digits.
- Let's see if we can work together to solve the riddle!

The number I am thinking of is **4.632.**

Decimal Place Value Riddles



Decimal Place Value Riddles

I can identify the value of each digit in numbers up to 3 decimal places.

Discover the mystery decimal numbers by solving the riddles.

1

- It is less than 10 but greater than 1 with three digits.
- The digits add up to 9.
- Only the tenths digit is odd.
- The ones digit is three greater than the tenths digit.
- The ones digit is less than five.

2

- It is less than 10 but greater than 1 with four digits.
- The digits add up to 22.
- Only the tenths and hundredths digits are odd.
- The sum of the tenths and hundredths digits is 10.
- The tenths digit isn't a factor of 30.
- The ones and thousandths digits are the same number which is a factor 18.
- The tenths digit is three more than the thousandths digit.

3

- It is less than 20 but greater than 10 with five digits.
- The digits add up to 18.
- Both the hundredths and thousandths digits are even; the product of these digits is 12.
- The hundredth digit is greater than the thousandth digit.
- The product of the tenths and hundredths digits is 30.
- The sum of the tens and ones digits is equal to the tenths digit.

4

- It is less than 10 but greater than 1 with four digits.
- The digits add up to 16.
- The tenths digit is half of the ones digit.
- The product of the ones and tenths digits is 32.
- The sum of the hundredths and thousandths digits is 4.
- The thousandth digit is five less than the ones digit.

Extra Challenge

Write your own decimal place value riddle for someone else to solve.

Aim

- I can identify the value of each digit in numbers given to three decimal places.

Success Criteria

- I can compare decimal numbers.
- I can explain the place value position of decimal numbers using the vocabulary of tenths, hundredths and thousandths.
- I can identify a decimal number by reasoning about the value of each digit.