# Place Value of Decimals Notes Decimals - Tenths

|  |  |  |
| --- | --- | --- |
| Block showing one whole unit | **1 whole unit can be split into 10 equal parts. Each part is one tenth** | Block showing one whole split into tenths |

Or we can show the same thing this way:

|  |  |  |  |
| --- | --- | --- | --- |
| Block showing one whole unit | Block showing one whole split into tenths | Blocks showing 10 tenths split into individual parts | block showing one tenth |
| **One (1) whole unit**  | **Split into ten equal parts (tenths)**  | **Each part is one tenth**  |

**Numbers with place value**

When we write numbers with tenths using decimals we use a decimal point and the tenths place to the right of this decimal point. The tenth place is immediately right of the decimal point.

|  |  |  |  |
| --- | --- | --- | --- |
|  | label for decimal point holder | lable for tenths place |  |
| **9/10 = .9** | **.** | **9** | We read this number as **nine tenths** |
| **Blocks** | **Fraction** | **Decimal** | **Notes** |
| **block showing one tenth** | **1/10** | **.1****one tenth**  |  |
| **2 tenths** | **2/10** | **.2****two tenths**  |  |
| **block showing three tenths** | **3/10** | **.3****three tenths**  |  |
| **block showing four tenths** | **4/10** | **.4****four tenths**  |  |
| **blocks showing five tenths** | **5/10** | **.5****five tenths**  |  |
| **blocks showing six tenths** | **6/10** | **.6****six tenths**  |  |
| **blocks showing seven tenths** | **7/10** | **.7****seven tenths**  |  |
| **blocks showing eight tenths** | **8/10** | **.8****eight tenths**  |  |
| **blocks showing nine tenths** | **9/10** | **.9****nine tenths**  |  |
| **Block showing one whole split into tenths** | **10/10** | **1****one**  | **Note: ten tenths = one**  |
| **one whole unitblock showing one tenth** | **1 1/10** | **1.1****one and one tenth**  |  |
| **one whole unit2 tenths** | **1 2/10** | **1.2****one and two tenths**  |  |

# Decimals - Hundredths

|  |  |  |
| --- | --- | --- |
| Block showing one whole unit | **1 whole unit can be split into 100 equal parts. Each part is one hundredth** | block showing 100 hundredths |

Or we can show the same thing this way:

|  |  |  |  |
| --- | --- | --- | --- |
| Block showing one whole unit | Block showing one whole split into tenths | block showing 100 hundredths | block showing one hundredth |
| **One (1) whole unit**  | **Split into ten equal parts (tenths)**  | **Each tenth split into ten equal parts**  | **Each part is one hundredth**  |

**Numbers with place value**

When we write numbers with hundredths using decimals we use a decimal point and places to the right of this decimal point. The hundredth place is two places to the right of the decimal point.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | label for decimal point holder | lable for tenths place | label for hundredths place |  |
| **73/100 = .73** | **.** | **7** | **3** | We read this number as **seventy-three hundredths** |
| **Blocks** | **Fraction** | **Decimal** | **Notes** |
| **block showing one hundredth** | **1/100** | **.01****one hundredth**  |  |
| **blocks showing two hundredths** | **2/100** | **.02****two hundredths** |  |
| **block showing four tenthsblocks showing four hundredths** | **44/100** | **.44****forty-four hundredths** | Note: four tenths = forty hundredths ( .4 = .40 )  |
| **blocks showing eight tenthsblocks showing seven hundredths** | **87/100** | **.87****eighty-seven hundredths** |  |
| **block showing three tenthsblock showing five hundredths** | **35/100** | **.35****thirty-five hundredths** |  |
| **one whole unitblock showing one hundredth** | **1 1/100** | **1.01****one and one hundredths** |  |
| **one whole unit2 tenthsblocks showing six hundredths** | **1 26/100** | **1.26****one and twenty-six hundredths** |  |

# Decimals - Thousandths

|  |  |  |
| --- | --- | --- |
| Block showing one whole unit | **1 whole unit can be split into 1,000 equal parts. Each part is one thousandth.** | place value block showing 1000 thousandths |

Or we can show the same thing this way:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Block showing one whole unit | Block showing one whole split into tenths | block showing 100 hundredths | place value block showing 1000 thousandths | block representing 1 thousandth |
| **One (1) whole unit**  | **Split into ten equal parts (tenths)**  | **Each tenth split into ten equal parts (hundredths)**  | **Each hundredth split into ten equal parts** | **Each part is one thousandth**  |

## Numbers with place value

When we write numbers with thousandths using decimals we use a decimal point and places to the right of this decimal point. The thousandth place is three places to the right of the decimal point.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | label for decimal point holder | lable for tenths place | label for hundredths place | label for thousandths place |  |
| **389/1000 = .389**  | **.** | **3** | **8** | **9** | We read this number as **three hundred eight-nine thousandths** |

## Examples of numbers with thousandths

|  |  |  |  |
| --- | --- | --- | --- |
| **Blocks** | **Fraction** | **Decimal** | **Notes** |
| **block representing 1 thousandth** | **1/1000** | **.001****one thousandth** |  |
| **blocks showing two thousandths** | **2/1000** | **.002****two thousandths** |  |
| **blocks showing three hundredthsblocks showing seven thousandths** | **37/1000** | **.037****thirty-seven thousandths** | Note: three hundredths = thirty thousandths ( .03 = .030 )  |
| **block showing one tenthblock showing four thousandths** | **104/1000** | **.104****one hundred four thousandths** | Note: one tenth = one hundred thousandths( .1 = .100)  |
| **blocks showing 5 tenthsblocks showing four hundredthsblocks showing 5 thousandths** | **545/1000** | **.545****five hundred forty-five thousandths** |  |
| **one whole unitblock representing 1 thousandth** | **1 1/1000** | **1.001****one and one thousandth** |  |
| **one whole unit2 tenthsblocks showing six hundredthsblocks showing three thousandths** | **1 263/1000** | **1.263****one and two hundred sixty-three thousandths** |  |