# 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** |  |