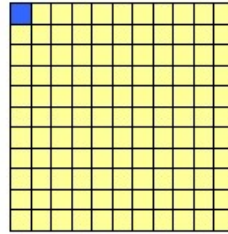
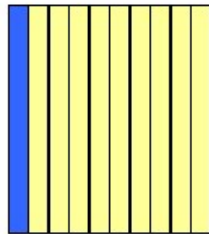
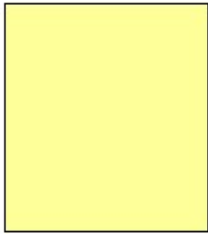


## Decimal Place Value

Base-ten blocks can be used to model decimals.



A square represents  
divided one whole, or 1.

The whole is divided  
into 10 equal parts.

The whole is  
into 100 equal parts.

Each part is  $\frac{1}{10}$  of a whole or 0.1.

Each part is  $\frac{1}{100}$  of a whole, or 0.01.

**one**

1.0

1

**one tenth**

0.1

$\frac{1}{10}$

**one hundredth**

0.01

$\frac{1}{100}$

### Examples:

A- Find the value of the underlined digit.

1) 1.023

2) 0.945

3) 24.821

4) 5.761

5- 9.391

$$\frac{3}{1000}$$

$$\frac{9}{10}$$

$$\frac{8}{10}$$

$$\frac{6}{100}$$

$$\frac{1}{1000}$$

0.003

0.9

0.8

0.06

0.001

A place-value chart can help you find the value of each digit in a decimal.

Ones	.	Tenths	Hundredths	Thousandths	Ten Thousandths
3	.	2	5	6	1

### Decimals:

**Read:**            Three    two tenths            five            six            one  
   hundredths    thousands    ten thousandths

**Write:**            3            0.2            0.05            0.006            0.0001

**Standard Form:** 3.2561

**Expanded Form:**  $3.0 + 0.2 + 0.05 + 0.006 + 0.0001$

**Word Form:** three and two thousand, five hundred fifty-one ten thousandths.

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### Examples:

**A- Write each number in two other forms.**

1) 7.0432

$$7.0 + 0.04 + 0.003 + 0.0002$$

Seven and four hundred thirty-two ten-thousandths

2) Five and three thousand, nine hundred eighty-one ten-thousandths

$$5.3981$$

$$5 + 0.3 + 0.09 + 0.008 + 0.0001$$

3)  $9.0 + 0.4 + 0.06 + 0.007 + 0.0005$

$$9.4675$$

Nine and four thousand, six hundred seventy-five ten-thousandths