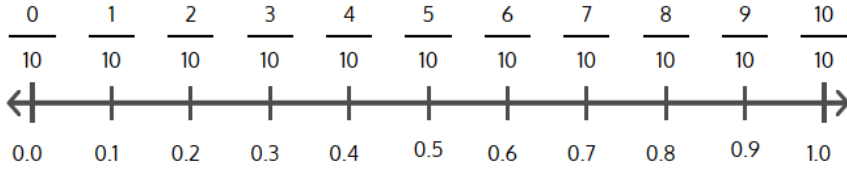


4th Grade Mission 6 Notes

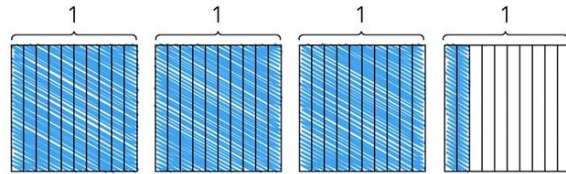
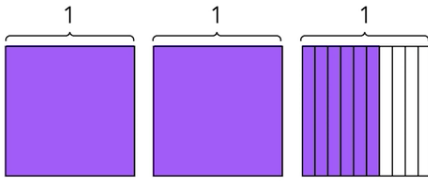
Fraction to Decimal



$$2 + \frac{6}{10} = 2\frac{6}{10}$$

$$3\frac{2}{10}$$

$$3.2 = 3 + 0.2$$



We need 0.8 to make 4 wholes.

Place Value Disks	Unit Form	Expanded Form	Standard Form
	4 tens	(4×10)	40
	2 ones	(2×1)	2
	6 tenths	(6×0.1)	0.6



Place value disks

4 tens + 2 ones + 6 tenths

Unit form

40 + 2 + 0.6 = $42\frac{6}{10}$

Standard form

= 42.6

$(4 \times 10) + (2 \times 1) + (6 \times 0.1)$

Expanded form

Number Line	Decimal Form	Expanded Form
	4.1	$(4 \times 1) + (1 \times 0.1)$
	32.5	$(3 \times 10) + (2 \times 1) + (5 \times 0.1)$
	48.7	$(4 \times 10) + (8 \times 1) + (7 \times 0.1)$

Place Value Chart Millions thru Thousandths

x 1,000,000	x 100,000	x 10,000	x 1,000	x 100	x 10	x 1	x 0.1	x 0.01	x 0.001
Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths

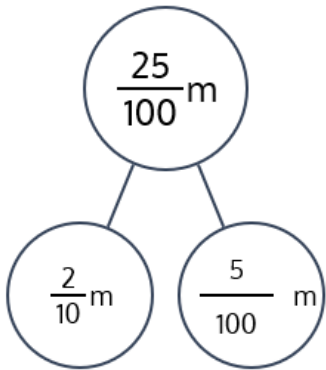
↑
Decimal Point read as "and"

$$\frac{1}{100} \text{ m} = 0.01 \text{ m}$$

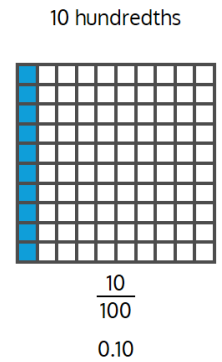
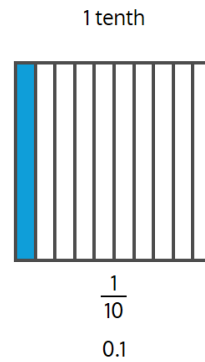
$$\frac{4}{100} \text{ m} = 0.04 \text{ m}$$

$$\frac{1}{10} \text{ m} = \frac{10}{100} \text{ m}$$

$$0.1 \text{ m} = 0.10 \text{ m}$$

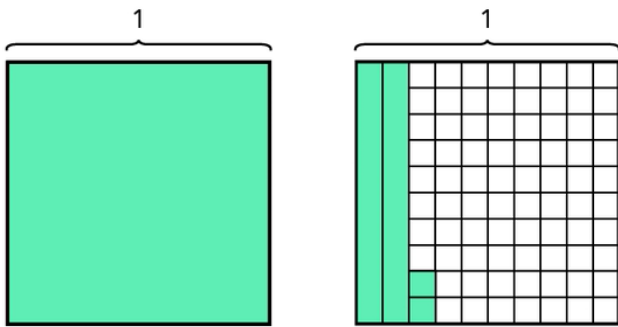


0.25 m



Equivalent because they take up the same amount of space.

$$\frac{1}{10} \times \frac{10}{10} = \frac{10}{100}$$



$$1 \frac{22}{100}$$

$$= 1.22$$

1 one 2 tenths 2 hundredths

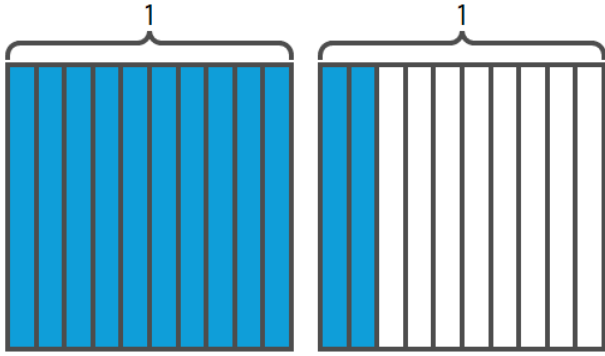
378.73

3 hundreds 7 tens 8 ones 7 tenths 3 hundredths

hundreds	tens	ones	.	tenths	hundredths
3	7	8	.	7	3

$$(3 \times 100) + (7 \times 10) + (8 \times 1) + (7 \times \frac{1}{10}) + (3 \times \frac{1}{100})$$

$$(3 \times 100) + (7 \times 10) + (8 \times 1) + (7 \times 0.1) + (3 \times 0.01)$$



Decimal	Mixed Number	Tenths	Hundredths
1.2	$1 \frac{2}{10}$	12 tenths	120 hundredths

$5.1 = 510$ hundredths $2.7 = 27$ tenths



$1 \text{ m} = 100 \text{ cm}$

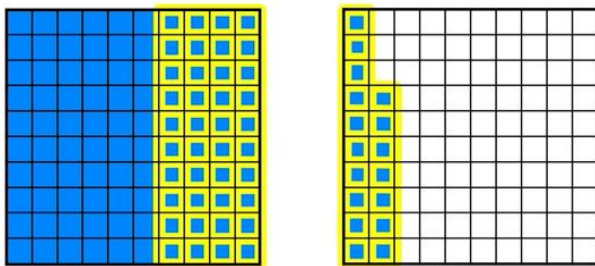


$0.3 = 0.30$

$7.2 > 7.02$

When comparing decimals, look at each number and their place values.

When adding and subtracting fractions with unlike denominators, convert the smaller denominator into a like fraction (common factor).



$$\frac{6}{10} + \frac{57}{100} = \frac{60}{100} + \frac{57}{100} = 1 \frac{17}{100} = 1.17$$

$$\begin{aligned} 0.30 + 0.5 &= \frac{30}{100} + \frac{5}{10} \\ &= \frac{30}{100} + \frac{50}{100} \\ &= \frac{80}{100} \\ &= 0.80 \end{aligned}$$

$$0.5 + 0.64 = \frac{5}{10} + \frac{64}{100}$$

$$= \frac{50}{100} + \frac{64}{100}$$

$$= 1 \frac{14}{100}$$

$$6\frac{8}{10} + 5\frac{7}{10} = (6 + 5) + (\frac{8}{10} + \frac{7}{10})$$

$$= 11 + \frac{15}{10}$$

$$= 12\frac{5}{10}$$

**Steps to Adding and Subtracting
Whole Numbers and Decimals**

1. Change the whole number to a decimal.
2. Line up the place values vertically using the decimals as a guide

3 to 3.0







2.4
+ 3.0

3. Add or Subtract the numbers.

2.4
+ 3.0
5.4

4. Check your answer by using the opposite operation.

5.4
- 3.0
2.4

		
1 cent Penny	10 cents Dime	25 cents Quarter
		
$\frac{1}{100}$ \$0.01	$\frac{10}{100}$ \$0.10	$\frac{25}{100}$ \$0.25

Fraction of a dollar