

## INTERVENTION

Length – Convert Millimetres – Centimetres,  
 Centimetres – Metres, Millimetres - Metres,  
 using Fractions, Decimals, and Multiplicative Place Value

Each Intervention Anchor Chart contains steps to allow the child to investigate independently.

Children investigating an Intervention may be provided with the Intervention Anchor Chart as a guide to follow as they investigate independently.

Children investigating an Intervention may have their progress recorded in the Progress Sheet.

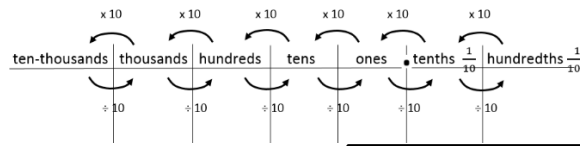
Length – Convert Millimetres - Centimetres, using Fractions, Decimals, and Multiplicative Place Value... [page 2 - 3](#)  
 Length – Convert Centimetres - Metres, using Fractions, Decimals, and Multiplicative Place Value ..... [page 4 - 5](#)  
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 Progress Sheet ..... [page 8](#)

# Convert Millimetres to Centimetres, using Fractions, Decimals, and Multiplicative Place Value

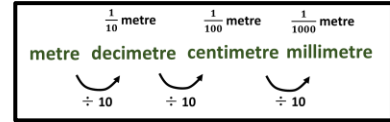
(Measurement and Geometry 51)

RESOURCES: ruler with centimetres and millimetres, objects to measure, pencil, paper / Maths book

Record a multiplicative place value chart to hundredths.



Record a metric length measurement chart.



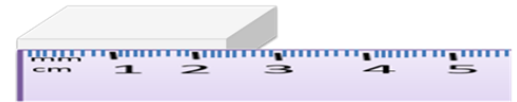
What fraction of a metre is a decimetre? Does deci mean  $\frac{1}{10}$ ?

What fraction of a metre is a centimetre? Does centi mean  $\frac{1}{100}$ ?

What fraction of a metre is a millimetre? Does milli mean  $\frac{1}{1000}$ ?

When we measure length, are we measuring a line in 1 dimension?

Have a ruler with centimetres and millimetres to measure the length of an object in millimetres.



**26 millimetres**

Record the length in millimetres.

Measure the length of the object in centimetres and millimetres. **2 centimetres + 6 millimetres**

What fraction of a centimetre is 1 millimetre?

**1 millimetre =  $\frac{1}{10}$  centimetre**

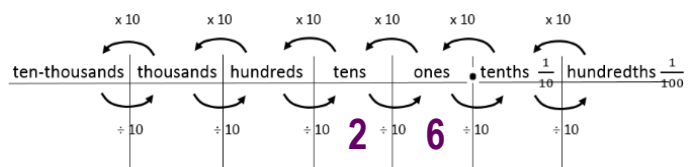
If 1 millimetre is 1 tenth as long as a centimetre, what fraction of a centimetre is 6 millimetres?

**6 millimetres =  $\frac{6}{10}$  centimetre**

Record the length in centimetres and a fraction of a centimetre.

**2 centimetres + 6 millimetres =  $2 \frac{6}{10}$  centimetres**

Record the length in a place value chart as millimetres.



Record the length in a place value chart as centimetres and a decimal fraction of a centimetre.

Did we divide the number of millimetres by 10 to get the same length in centimetres?

Explain why.

**A centimetre is 10 times longer than a millimetre, so we will need 10 times fewer centimetres than millimetres to measure the same length. So we will divide the number of millimetres by 10 to get the same length in centimetres.**

Reflection: How can we measure length in millimetres?

How can we measure length in centimetres and a fraction of a centimetre?

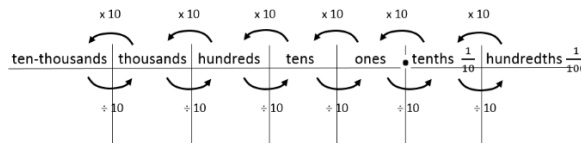
How can we measure length in centimetres and a decimal fraction of a centimetre?

How can we convert from millimetres to centimetres using multiplicative place value, explaining why we multiplied or divided by 10?

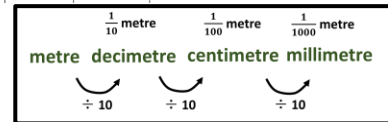
# Convert Centimetres to Millimetres, using Fractions, Decimals, and Multiplicative Place Value (Measurement and Geometry 51)

RESOURCES: ruler with centimetres and millimetres, objects to measure, pencil, paper / Maths book

Record a multiplicative place value chart to hundredths.



Record a metric length measurement chart.



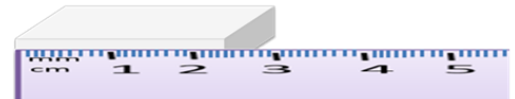
What fraction of a metre is a decimetre? Does deci mean  $\frac{1}{10}$ ?

What fraction of a metre is a centimetre? Does centi mean  $\frac{1}{100}$ ?

What fraction of a metre is a millimetre? Does milli mean  $\frac{1}{1000}$ ?

When we measure length, are we measuring a line in 1 dimension?

Have a ruler with centimetres and millimetres to measure the length of an object in centimetres and a fraction of a centimetre.



Measure the length in centimetres and a fraction of a centimetre

$2 \frac{6}{10}$  centimetres

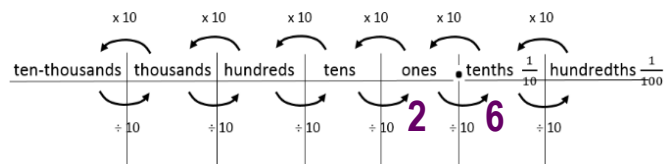
Measure the length of the object in centimetres and millimetres

2 centimetres + 6 millimetres

Record the length in millimetres.

26 millimetres

Record the length in a place value chart as centimetres and a decimal fraction of a centimetre



Record the length in a place value chart as millimetres.

26

Did we multiply the number of centimetres by 10 to get the same length in millimetres?

Explain why.

A millimetre is 10 times shorter than a centimetre, so we will need **10 times more millimetres** than centimetres to measure the same length. So we will **multiply** the number of centimetres by 10 to get the same length in millimetres.

Reflection: How can we measure length in centimetres and a fraction of a centimetre?

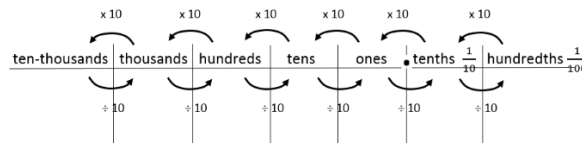
How can we measure length in centimetres and a decimal fraction of a centimetre?

How can we convert from centimetres to millimetres using multiplicative place value, explaining why we multiplied or divided by 10?

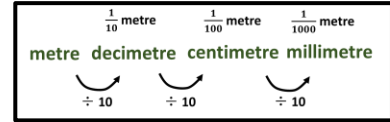
# Convert Centimetres to Metres, using Fractions, Decimals, and Multiplicative Place Value (Measurement and Geometry 51)

RESOURCES: metre ruler with centimetres, objects to measure, pencil, paper / Maths book

Record a multiplicative place value chart to hundredths.



Record a metric length measurement chart.



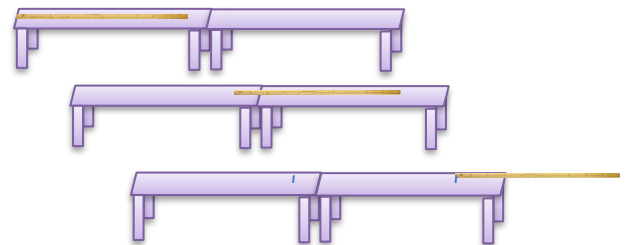
What fraction of a metre is a decimetre? Does deci mean  $\frac{1}{10}$  ?

What fraction of a metre is a centimetre? Does centi mean  $\frac{1}{100}$  ?

What fraction of a metre is a millimetre? Does milli mean  $\frac{1}{1000}$  ?

When we measure length, are we measuring a line in 1 dimension?

Have a metre ruler with centimetres to measure the length of an object in centimetres.



**235 centimetres**

Record the length in centimetres.

Measure the length of the object in metres and centimetres.

**2 metres + 35 centimetres**

What fraction of a metre is 1 centimetre?

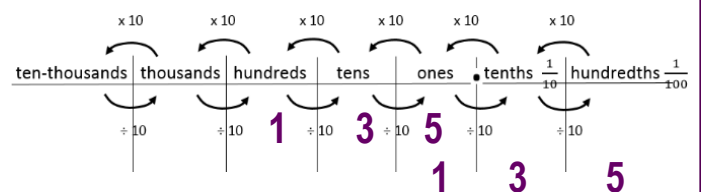
**1 centimetre =  $\frac{1}{100}$  metre**

If 1 centimetre is 1 hundredth as long as a metre, what fraction of a metre is 35 centimetres?

**35 centimetres =  $\frac{35}{100}$  metre**

Record the length in metres and a fraction of a metre. **2 metres + 35 centimetres =  $2 \frac{35}{100}$  metres**

Record the length in a place value chart as centimetres.



Record the length in a place value chart as metres and a decimal fraction of a metre.

Did we divide the number of centimetres by 100 to get the same length in metres?

Explain why. **A metre is 100 times longer than a centimetre, so we will need 100 times fewer metres than centimetres to measure the same length. So we will divide the number of centimetres by 100 to get the same length in metres.**

Reflection: How can we measure length in centimetres?

How can we measure length in metres and a fraction of a metre?

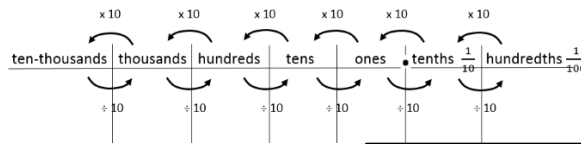
How can we measure length in metres and a decimal fraction of a metre?

How can we convert from centimetres to metres using multiplicative place value, explaining why we multiplied or divided by 100?

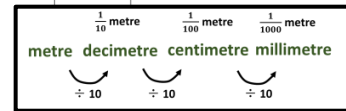
# Convert Metres to Centimetres, using Fractions, Decimals, and Multiplicative Place Value (Measurement and Geometry 51)

RESOURCES: metre ruler with centimetres, objects to measure, pencil, paper / Maths book

Record a multiplicative place value chart to hundredths.



Record a metric length measurement chart.



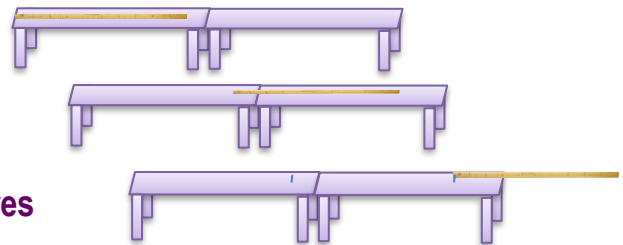
What fraction of a metre is a decimetre? Does deci mean  $\frac{1}{10}$ ?

What fraction of a metre is a centimetre? Does centi mean  $\frac{1}{100}$ ?

What fraction of a metre is a millimetre? Does milli mean  $\frac{1}{1000}$ ?

When we measure length, are we measuring a line in 1 dimension?

Have a metre ruler with centimetres to measure the length of the object in metres and a fraction of a metre.



Measure the length in metres and a fraction of a metre

$$2 \frac{35}{100} \text{ metres}$$

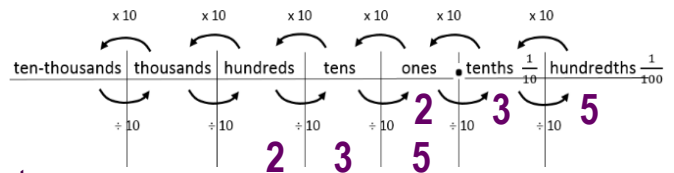
Measure the length of the object in metres and centimetres

2 metres + 35 centimetres

Record the length in millimetres.

235 centimetres

Record the length in a place value chart as metres and a decimal fraction of a metre



Record the length in a place value chart as centimetres.

Did we multiply the number of metres by 100 to get the same length in centimetres?

Explain why.

A centimetre is 100 times shorter than a metre, so we will need **100 times more centimetres** than metres to measure the same length. So we will **multiply** the number of metres by 100 to get the same length in centimetres.

Reflection: How can we measure length in centimetres and a fraction of a centimetre?

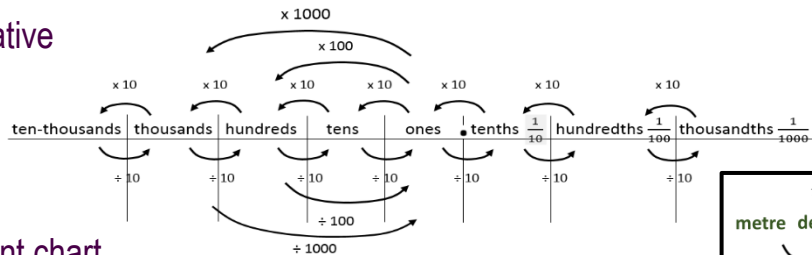
How can we measure length in centimetres and a decimal fraction of a centimetre?

How can we convert from centimetres to millimetres using multiplicative place value, explaining why we multiplied or divided by 100?

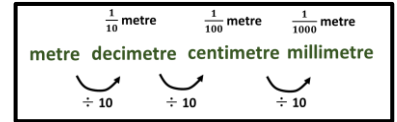
# Convert Millimetres to Metres, using Fractions, Decimals, and Multiplicative Place Value (Measurement and Geometry 51)

RESOURCES: metre ruler with millimetres, objects to measure, pencil, paper / Maths book

Record a multiplicative place value chart to thousandths.



Record a metric length measurement chart.



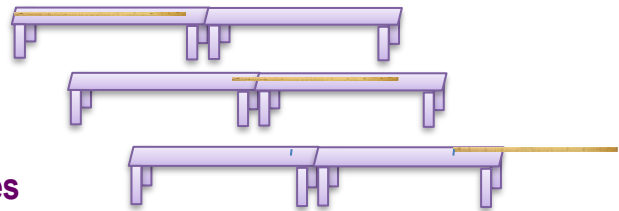
What fraction of a metre is a decimetre? Does deci mean  $\frac{1}{10}$  ?

What fraction of a metre is a centimetre? Does centi mean  $\frac{1}{100}$  ?

What fraction of a metre is a millimetre? Does milli mean  $\frac{1}{1000}$  ?

When we measure length, are we measuring a line in 1 dimension?

Have a metre ruler with millimetres to measure the length of an object in centimetres.



Record the length in millimetres. **2356 millimetres**

Measure the length of the object in metres and millimetres.

**2 metres + 356 millimetres**

What fraction of a metre is 1 millimetre?

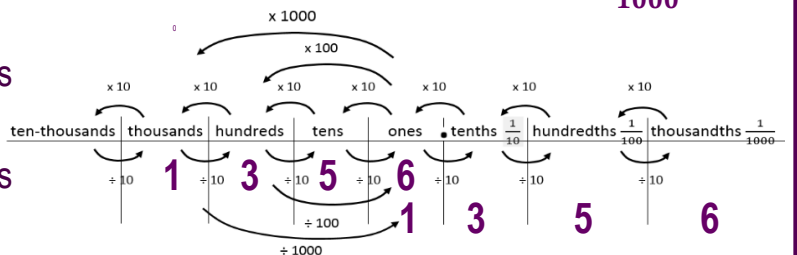
**1 millimetre =  $\frac{1}{1000}$  metre**

If 1 millimetre is 1 thousandth as long as a metre, what fraction of a metre is 356 millimetres?

**356 millimetres =  $\frac{356}{1000}$  metre**

Record the length in metres and a fraction of a metre. **2 metres + 356 millimetres =  $2 \frac{356}{1000}$  metres**

Record the length in a place value chart as millimetres.



Record the length in a place value chart as metres and a decimal fraction of a metre.

Did we divide the number of millimetres by 1000 to get the same length in metres?

Explain why. **A metre is 1000 times longer than a millimetre, so we will need**

**1000 times fewer metres** than millimetres to measure the same length.

**So we will divide** the number of millimetres by 1000 to get the same length in metres.

Reflection: How can we measure length in millimetres?

How can we measure length in metres and a fraction of a metre?

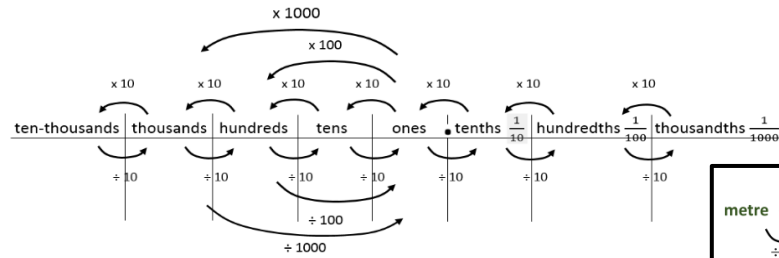
How can we measure length in metres and a decimal fraction of a metre?

How can we convert from millimetres to metres using multiplicative place value, explaining why we multiplied or divided by 1000?

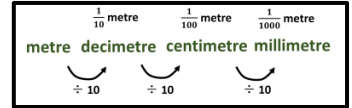
# Convert Metres to Millimetres, using Fractions, Decimals, and Multiplicative Place Value (Measurement and Geometry 51)

RESOURCES: metre ruler with millimetres, objects to measure, pencil, paper / Maths book

Record a multiplicative place value chart to hundredths.



Record a metric length measurement chart.



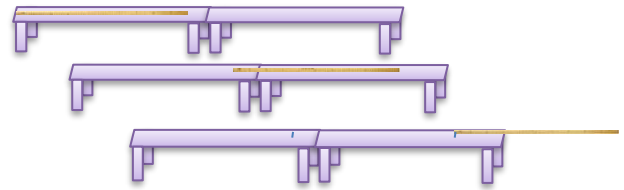
What fraction of a metre is a decimetre? Does deci mean  $\frac{1}{10}$  ?

What fraction of a metre is a centimetre? Does centi mean  $\frac{1}{100}$  ?

What fraction of a metre is a millimetre? Does milli mean  $\frac{1}{1000}$  ?

When we measure length, are we measuring a line in 1 dimension?

Have a metre ruler with millimetres to measure the length of the object in metres and a fraction of a metre.



Measure the length in metres and a fraction of a metre

$$2 \frac{356}{1000} \text{ metres}$$

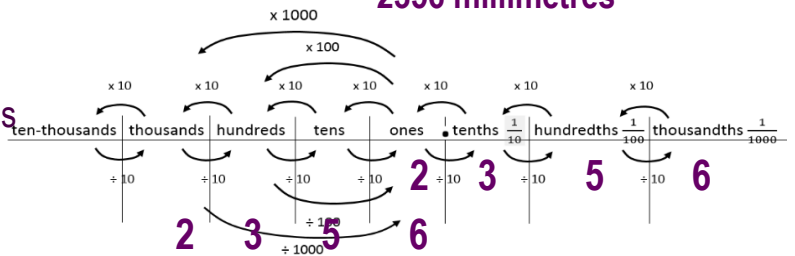
Measure the length of the object in metres and millimetres

$$2 \text{ metres} + 356 \text{ millimetres}$$

Record the length in millimetres.

$$2356 \text{ millimetres}$$

Record the length in a place value chart as metres and a decimal fraction of a metre



Record the length in a place value chart as millimetres.

Did we multiply the number of metres by 1000 to get the same length in millimetres?

Explain why.

A millimetre is 1000 times shorter than a metre, so we will need **1000 times more millimetres** than metres to measure the same length. So we will **multiply** the number of metres by 1000 to get the same length in millimetres.

Reflection: How can we measure length in centimetres and a fraction of a centimetre?

How can we measure length in centimetres and a decimal fraction of a centimetre?

How can we convert from centimetres to millimetres using multiplicative place value, explaining why we multiplied or divided by 100?



# Progress Sheet

Child's Details (Name and Intervention Concept):
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Each day, record the child's progress. This record, along with the child's recordings and explanations, can be used as: **ASSESSMENT OF LEARNING (SUMMATIVE)** – at any point in time the child's demonstrated level of understanding may be recorded for tracking and reporting purposes.

**ASSESSMENT FOR LEARNING (FORMATIVE)** – the teacher may use the child's demonstrated levels of understanding over time to plan, implement and evaluate further teaching and learning. Recording daily will allow the teacher to identify irregular learning progress, where the child demonstrates understanding in one lesson but not in subsequent lessons. This record can accompany an IEP, and a referral for further support for the child.

**ASSESSMENT AS LEARNING (FORMATIVE)** – the child may be shown this record to allow them to identify their learning progress. The teacher will use their teacher professional judgment to decide whether this is appropriate.

Date									
Number size Investigated									
Independent or with support?									

Date									
Number size Investigated									
Independent or with support?									

Date									
Number size Investigated									
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