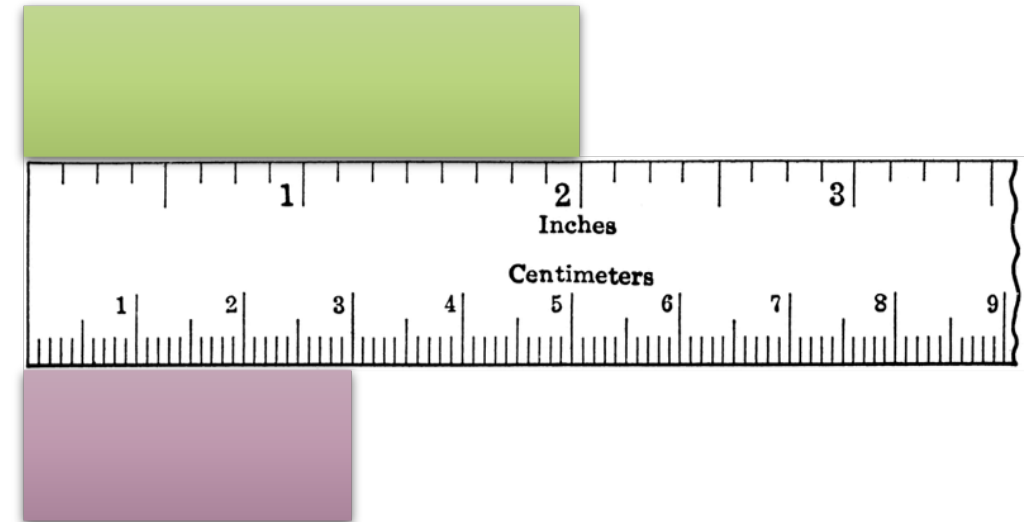


# Measurements

Lecturer: Mark Gillan

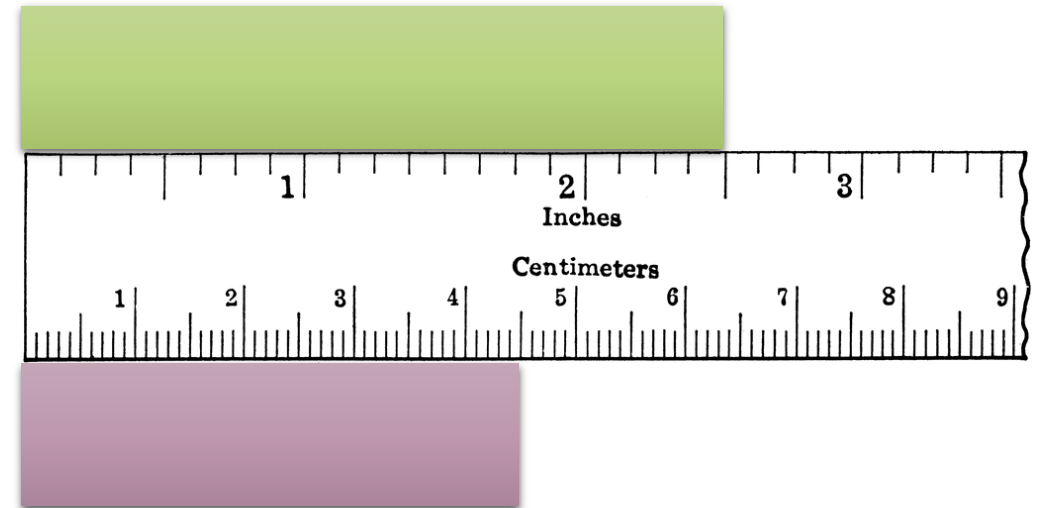
# Rule Guides – whole numbers

- › A standard ruler has centimetres along one edge and inches along the other
- › We know the green block illustrated is 2 inches
- › We know the purple block illustrated is 3 cm
- › Viewing the length to the number enables us to record the measurement



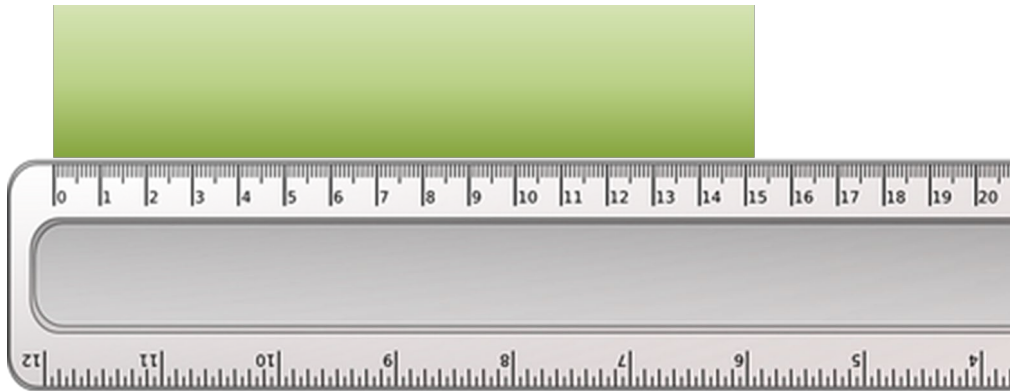
# Rule Guides – part numbers

- › Markings in between whole numbers enable us to use fractions or even decimal
- › We know the green block illustration commences at 0 and ends half way between the 2 and 3 inches with a marker
- › Therefore, the green block illustration can be measured to  $2\frac{1}{2}$  inches (inches prefers fractions for part of an inch)
- › We know the purple block illustration commences at 0 and ends half way between the 4 and 5 cm markers
- › Therefore, the purple block illustration can be measured to 4.5 cm (aka  $4\frac{1}{2}$  cm)

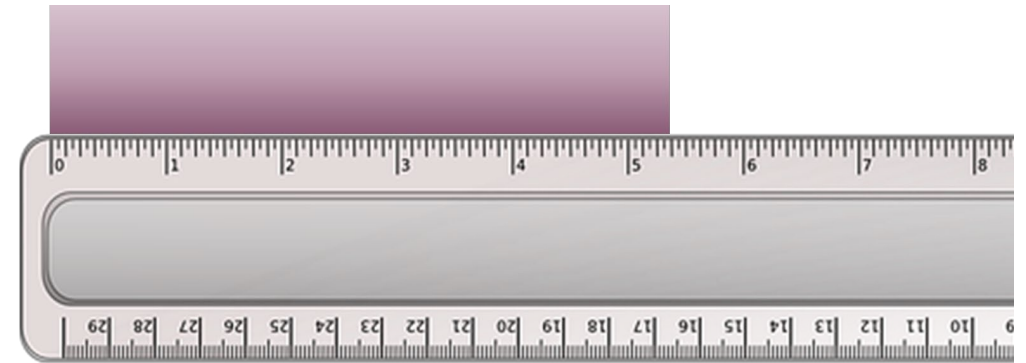


# Try these

GREEN BLOCK (CM)



PURPLE BLOCK (INCHES)



# Notice the line markers between numbers!

Centimetres have 10 line markers with a half way marker more prominent



Inches have 8 line markers between numbers with smaller markers between those 8

# Tip – count line markers between numbers

## LINE MARKERS BETWEEN CM'S

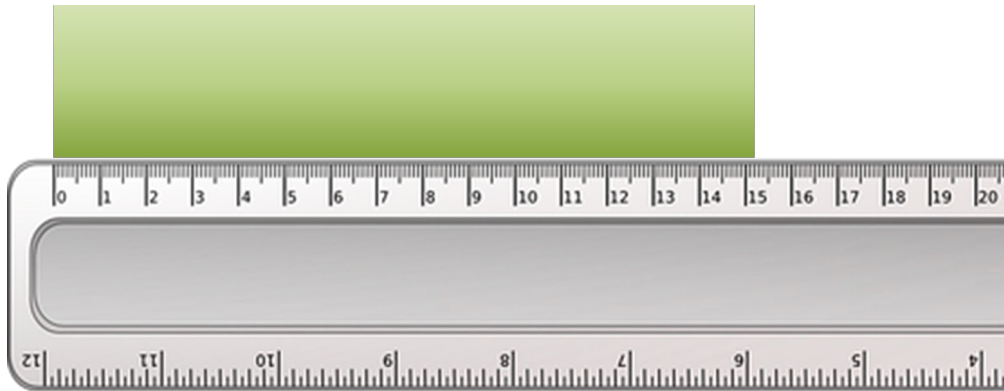
- › Centimetres will be decimal, in other words, each section between the numbers consists of **10 markers**
- › If you count 2 line markers past a number, this will be 2 out of the 10 ...  $\frac{2}{10}$
- › In other words, in decimal, it would be **0.2**
- › If you count 5 line markers past a number, this will be 5 out of the 10 ...  $\frac{5}{10}$
- › In other words, in decimal, it would be 0.5 ... also known as  $\frac{1}{2}$  in fractions

## LINE MARKERS BETWEEN INCHES

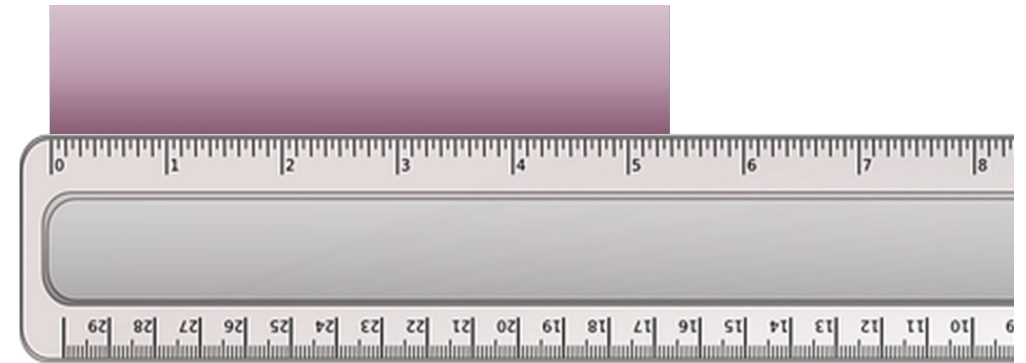
- › Inches has **8 markers** within the sections between each numbered inches
- › If you count 3 line markers past a number, this will be 3 out of the 8 ...  $\frac{3}{8}$
- › In other words, as a fraction it would be  **$\frac{3}{8}$ ths** (three eighths)
- › If you count 4 line markers past a number, this will be 4 out of the 8 ...  $\frac{4}{8}$
- › In other words, as a fraction, lowest denominator would be  $\frac{1}{2}$

# The Answers

15.2 CM (15 PLUS 2 OUT OF 10 LINE MARKERS)

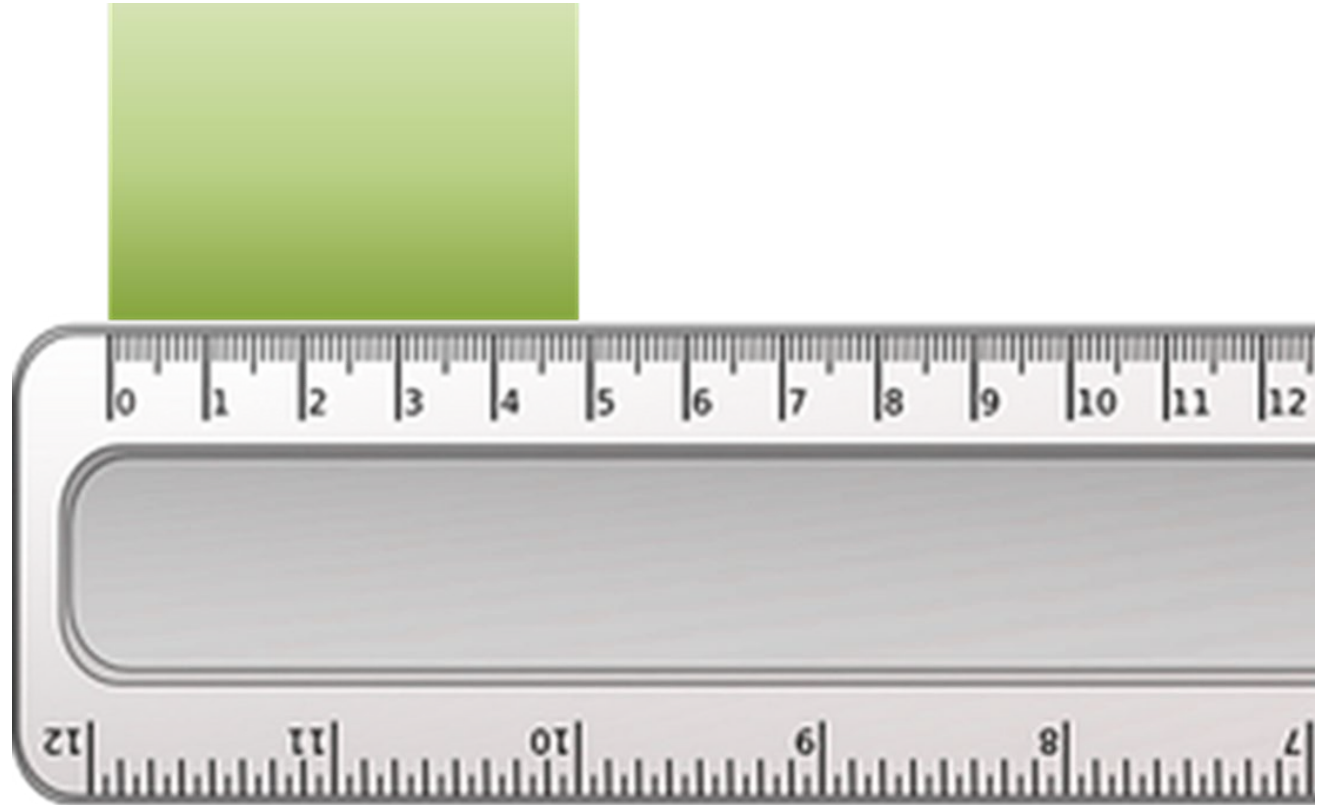


$5 \frac{3}{8}$  INCHES (5 PLUS 3 OUT OF 8 LINE MARKERS)



TRY ANOTHER,  
MAKE A NOTE OF  
YOUR ANSWER

Green block - length



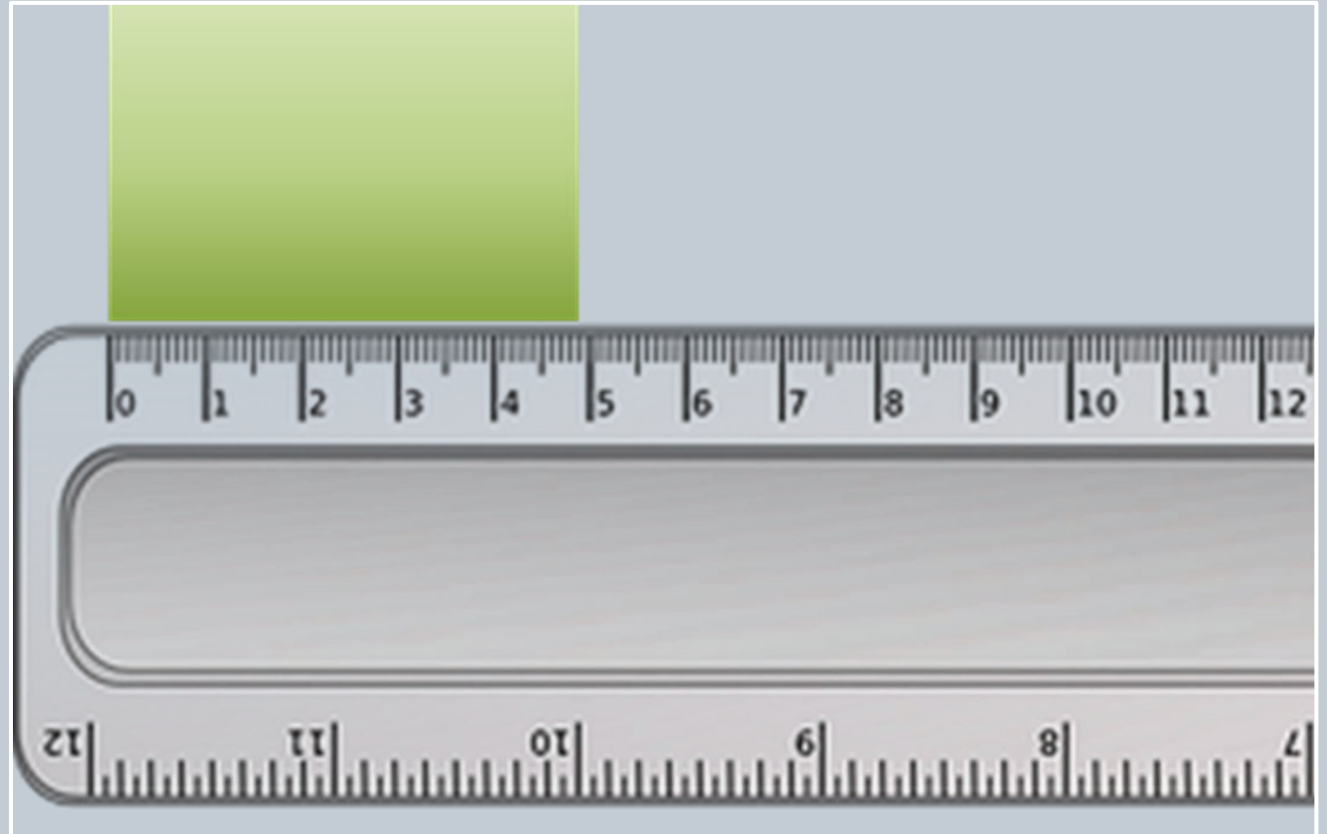
## THE ANSWER

Green block – length

4.9 cm

Explanation:

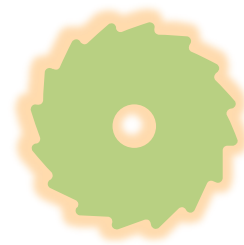
The length exceeds the 4 cm marking on the ruler guide by 9 of the 10 line markers between the 4 and 5 cm. You can also see it is just short of the 5 cm mark.



# Well done



If you got the measurement task correct  
to either 4.8 or 4.9 cm ...  
congratulations, you measure up!



If you got a completely different answer,  
it is recommended to view this tutorial  
again



Try using a rule guide yourself to  
measure cuts of paper, wood, anything  
at all ... have fun measuring

# Other measurements

- › Weight on scales
- › Length in metres or feet
- › Height of horses in hands
- › Temperature reading on a thermometer
- › Volume of liquids in jugs

Irrespective of what is being measured or the scale being used, it is a similar process for reading from the scale / measure guide

How much water is in the jug opposite?



# MEASURING LIQUID

So, the question was ...  
how much water is in the  
jug?

The answer:

**400 cc / 2 cups**



# Try other measuring units

- › Have fun measuring and applying the same strategy to different objects
- › Some students will find this topic easier than others and some students will need to practice more or view the tutorial again
- › All students need to try the exercises and check their knowledge

# APPRECIATION

Thank you for viewing this tutorial and learning or confirming your knowledge

Hope it helps

Mark Gillan, Lecturer

