

Sums. They're Math Magic

25 – More Geometric Sums

Please go through each slide stopping until you have understood the concept described

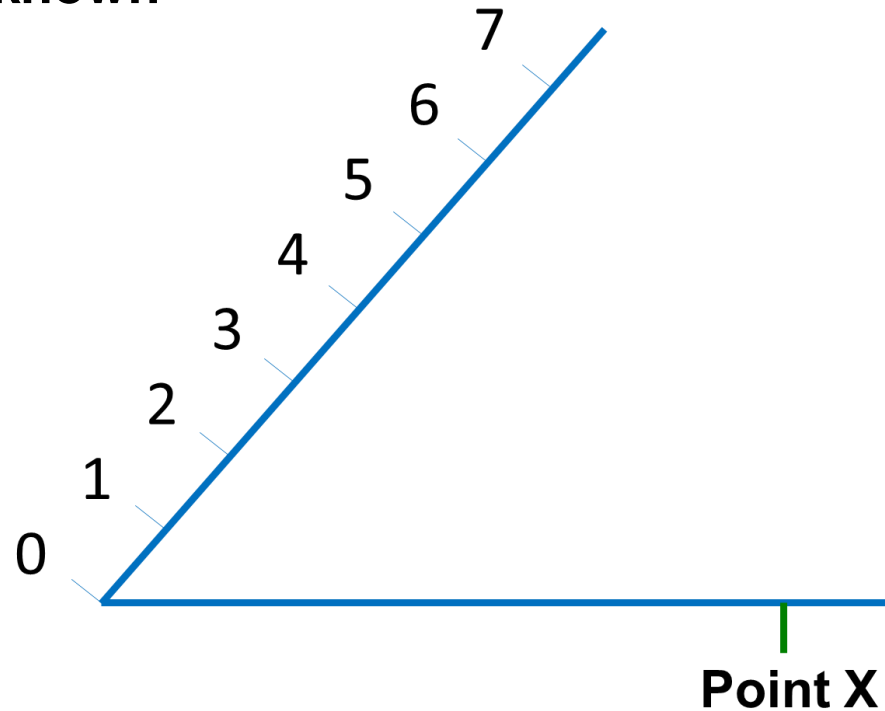
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How can you divide a line of unknown length by any number

And get an accurate answer

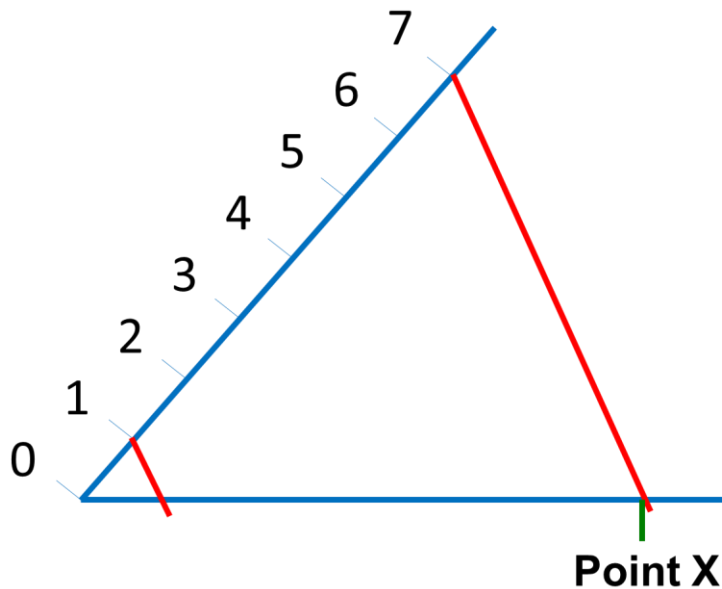
Here we divide by 7



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We use the Hippocrates of Chios method.



Draw a line from Point X to the number 7

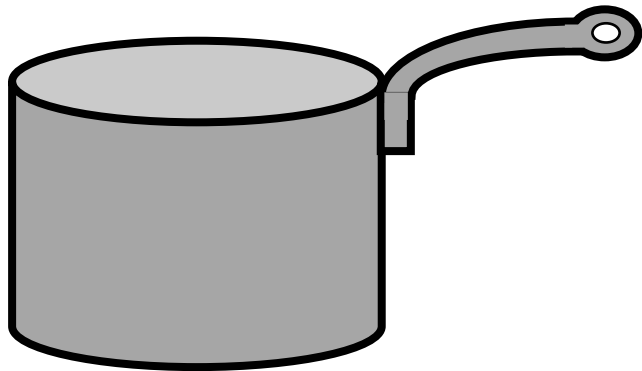
Now draw a parallel line through the 1 point

The answer is exactly one seventh of the length of the line from 0 to Point X

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π



You have a cooking pot which is 20cm Diameter and 15cm tall.

It weighs 1Kilo 25 grams

You fill it with water to exactly 100cm depth.

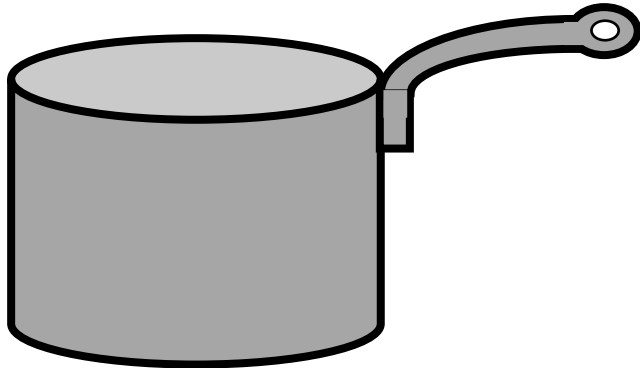
The pot and the water now weigh 4kilos 167 grams.

What is the value of Pi (**π**)

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π



In geometry volume = area x depth

The area of the pot surface is 10cm x 10cm x **π** .

The depth of the water is 10cm.

The volume is therefore 10 x 10 x 10 x **π**

Now the density of water is 1 so its mass (weight) is the same as its volume.

The weight of the water is 4.167 – 1.025 = 3.142Kg

So the value of Pi (**π**) is 3.142

This is correct to 3 decimal places!

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Please go to the next lesson.

Sum More Science

Who made King Arthur's round table?



Sir Cumference