

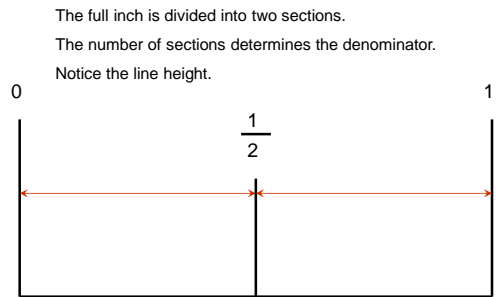
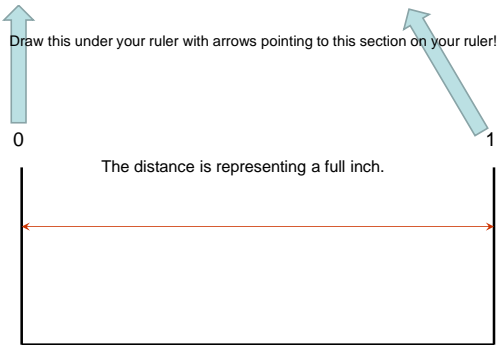
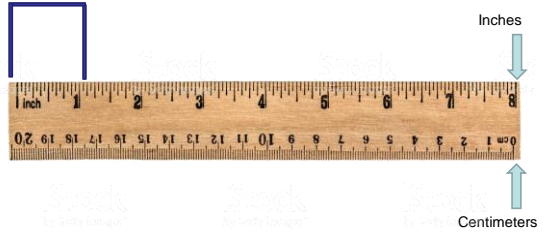
Reading a Ruler with Precision

Accuracy Counts
Measure Twice Cut Once



Trace a ruler horizontally onto your page.

Let's focus on this section.

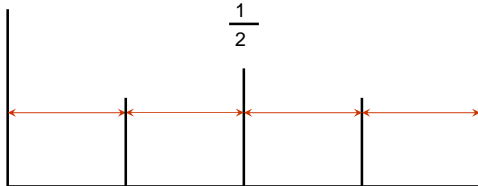


Each half inch section is divided into two sections.

Notice the line height. It's getting smaller.

Remember the number of sections determines the denominator.

0 What will the denominator be for the new lines? 1

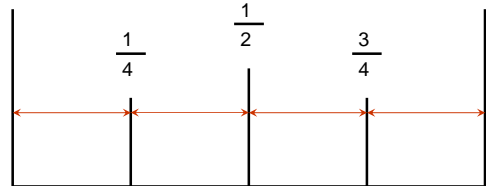


Each **half** inch section is divided into two sections.

Notice the line height. It's getting smaller.

The denominator is **4** because of the **4** sections created by the new lines.

0 1

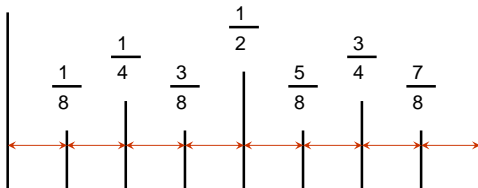


Each **fourth** inch section is divided into two sections.

Notice the line height. It's getting smaller.

The denominator is **8** because of the **8** sections created by the new lines.

0 1

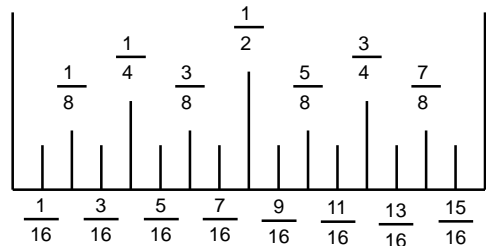


Each **eighth** inch section is divided into two sections.

Notice the line height. It's getting smaller.

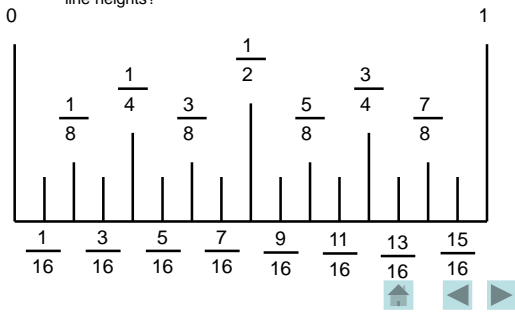
The denominator is **16** because of the **16** sections created by the new lines.

0 1



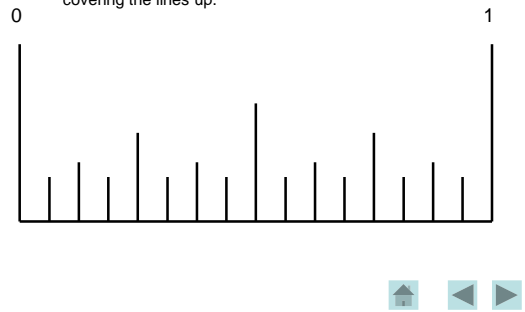
You now **know** all the fractions on a common school ruler.

But how can you tell the fractions just by look at the line heights?



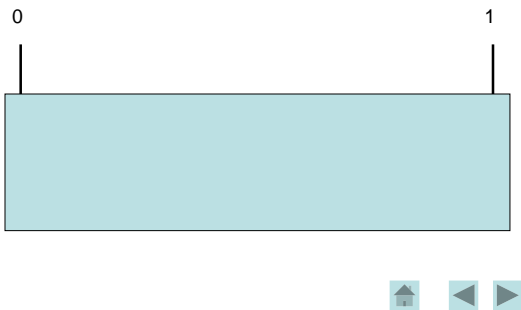
PAY CLOSE ATTENTION NOW

You can tell what the fraction is for each line by covering the lines up.



PAY CLOSE ATTENTION NOW

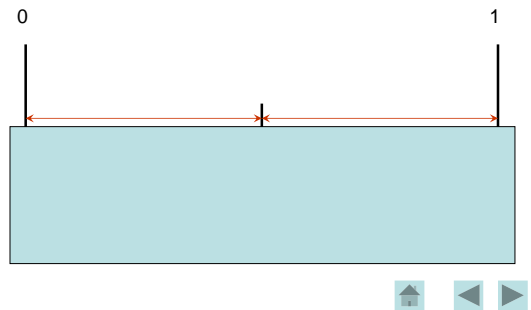
Cover the lines up.

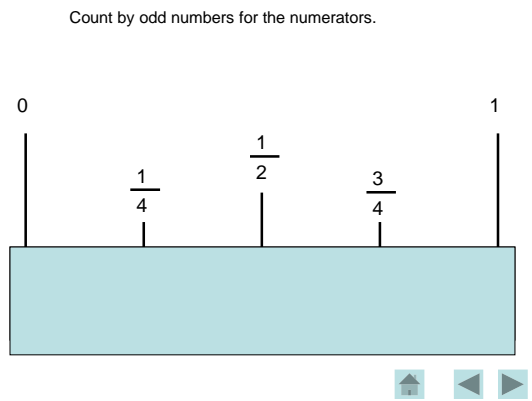
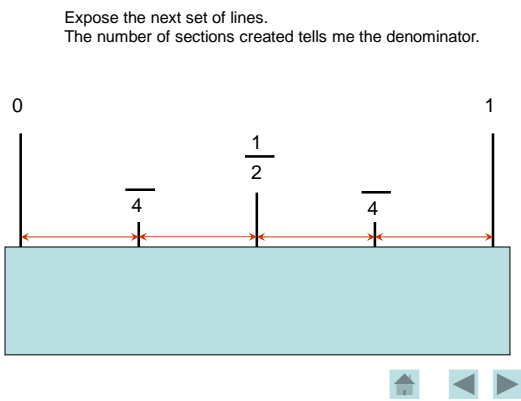
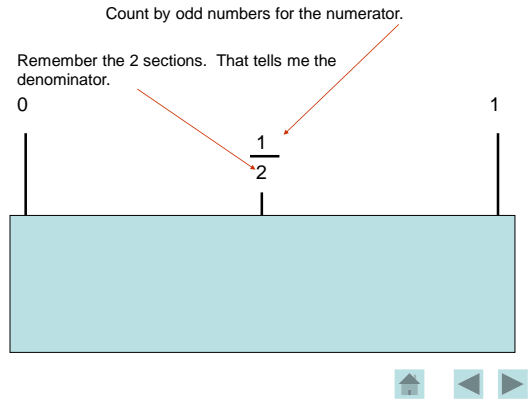
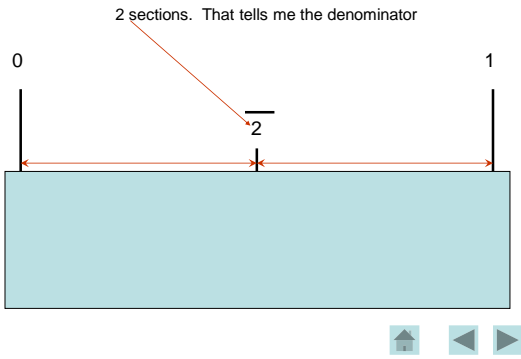


PAY CLOSE ATTENTION NOW

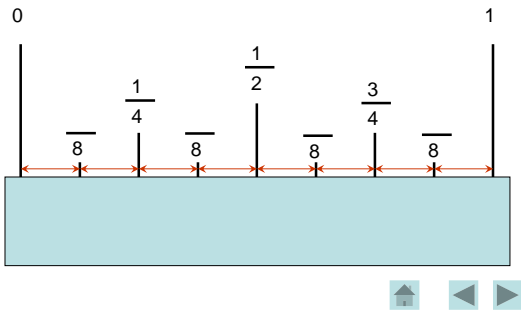
NOW expose the first set of lines.

HOW many sections are created?

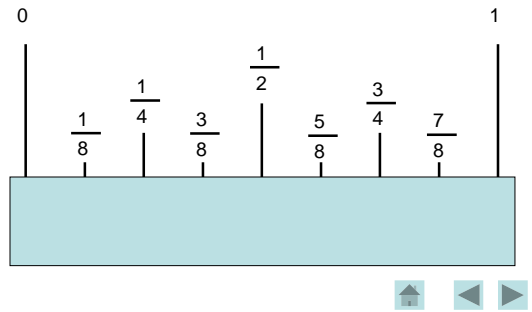




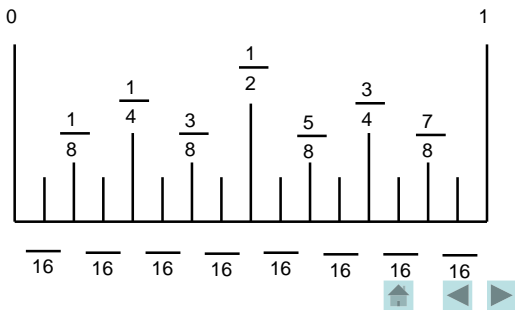
Expose the next set of lines.
The number of sections created tells me the denominator.



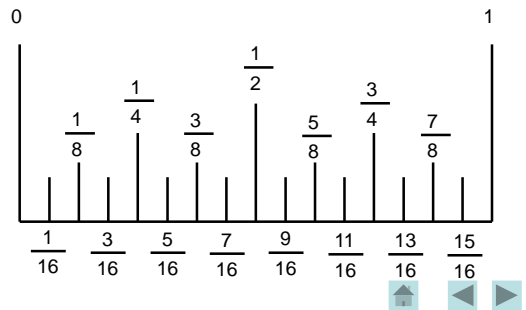
Count by odd numbers for the numerators.



Expose the next set of lines.
The number of sections created tells me the denominator.

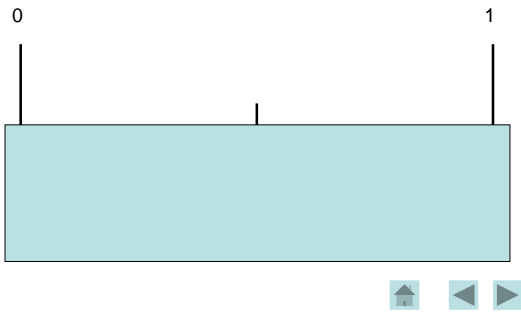


Count by odd numbers for the numerators.

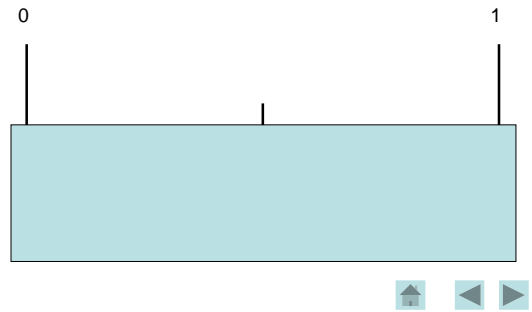


You try it.

Expose the first set of lines.

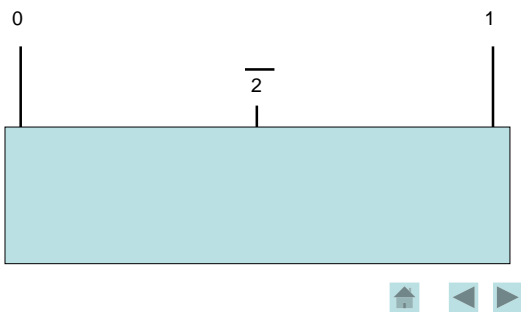


What is the denominator?



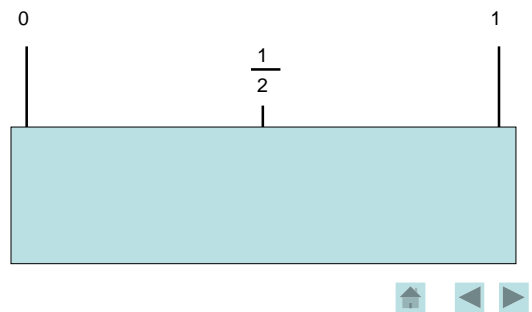
The denominator is 2.

Now what is the numerator?



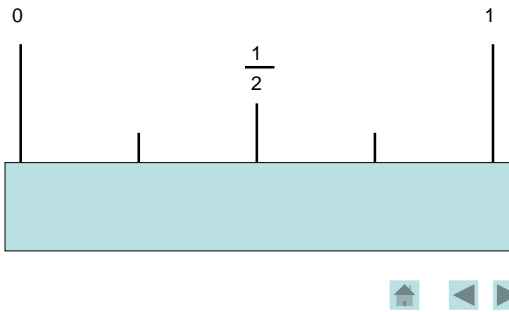
The numerator is 1. It's the first odd number.

Now try the next set of lines.



The denominator will be 4.

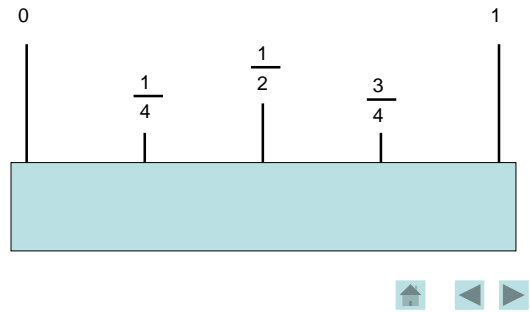
The numerators will be 1 and 3. Count by odd numbers.



The denominator will be 4.

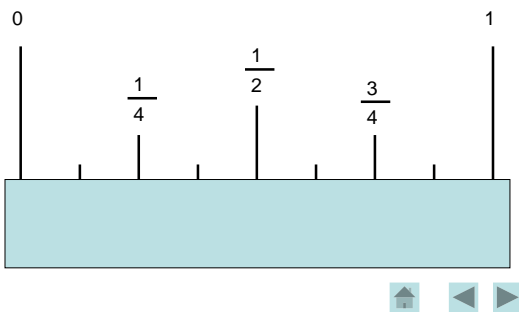
The numerators will be 1 and 3. Count by odd numbers.

Now expose the next set of lines.



What will denominator be?

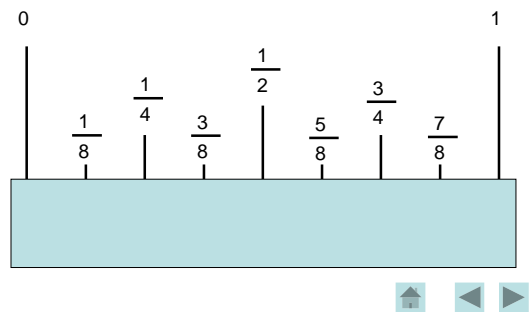
The numerators will be? Remember, count by odd numbers.



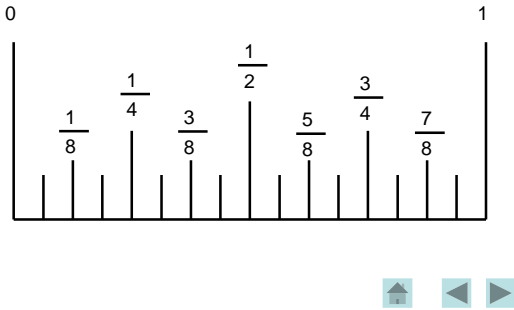
The denominator will be 8.

And the numerators will be 1,3,5 and 7.

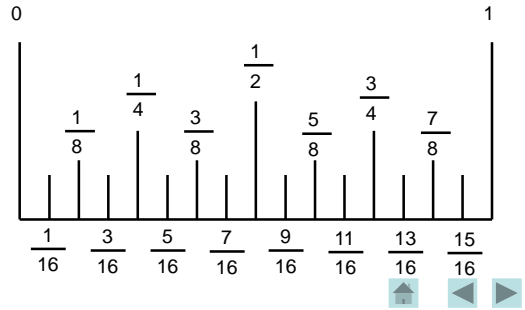
Now expose the last set of lines.



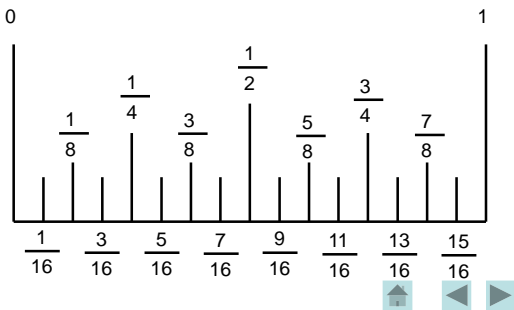
What will denominator be?
The numerators will be? Remember, count by odd numbers.



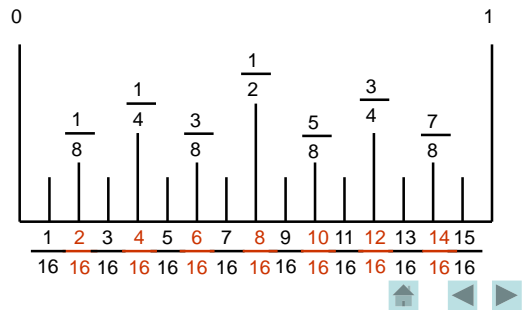
The denominator will be 16?
The numerators will be? 1,3,5,7,9,11,13 and 15. Remember, you count by odd numbers.



Why do we count by odd number?
Remember math class and reducing fractions.
We only have odd number in the numerators because an even number could be reduced.



All the red fractions can be reduced. Do you see any patterns?



Now fill in the lines on your ruler! Each mark should be labeled! Write neatly!



Measuring Practice

(Measure to the closest quarter inch)

1. What is the length of your notebook?

2. What is the height of the desk? _____
3. What is the length of your arm?

4. What is the length of your hair? _____
5. What is the distance between you and your face partner? _____

