

Measures: Linear & Circular
Mathematics and Millennials – 6th

Linear Measures

There are many types of Traditional Rulers such as:
12 inch Ruler 36 inch Yardstick 6 foot Ruler

Just as many Contemporary Rulers are in use today:
Power Metal Tapes Laser Tape Measure

Personal & Professional uses for Rulers are abundant!

Home and Work uses require everyone to know rulers!

Big Marks: Ruler

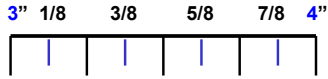
Big Marks ($1/4$, $1/2$, $3/4$) are easy to read on a basic 12 inch ruler. The mark ($1/2$) is biggest of All!
($1/4$ & $3/4$) are equally spaced on either side of ($1/2$)!



Marks are between 5 inches and 6 inches on the Ruler!
Identify & Point at marks : $5 \frac{1}{4}$, $5 \frac{1}{2}$, $5 \frac{3}{4}$.

Medium Marks: Ruler

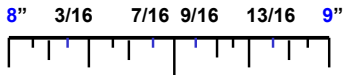
Medium Marks are easy to read on a basic ruler.
All medium marks are **equal in size** among Big Marks!
Medium Marks are **equally spaced** among the **Big Marks**.



Marks are between **3 inches** and **4 inches** on a Ruler!
Identify & Point at marks: **3 1/8, 3 3/8, 3 5/8, 3 7/8**.

Little Marks: Ruler

Little Marks are sometimes a little difficult to read on a basic 12 inch ruler. All Little Marks ($1/16$ s) are **equally spaced** on each side of Big and Medium Marks.



Marks are between **8 inches** & **9 inches**. Only a few have been identified. **Identify & Point at missing marks!**

Interactive & Hands-On

Student Collaborative **with** Interactive Activities !

Using a **Ruler & Paper** is traditional activities !

Using a **Virtual Ruler** is contemporary 21st Century !

Play (**The Ruler Game**) on the World Wide Web !

Angular Measures

There are many common types of Protractors such as:
Plastic 180° Classroom **Metal 360° Outdoor**

Just as many Contemporary Protractors in use today:
Miter Saw Protractor **Transit/Tripod/Stadia Rod**

Professional & Personal **uses** for Protractors are many!
Work and Home uses **expect** knowledge of Protractors!

Degree Measures

Protractors measure angles: **L to R** or **R to L**.

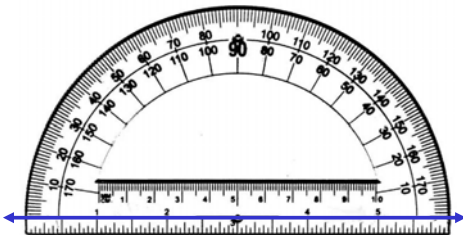
Angle Measurements: **0° to 180°** Why?

Measurements **smaller** degrees? (DMS) Why?

Precision & accuracy is done with **Electronics!**

Protractor Measures

Degrees L to R, **Outside!** Degrees R to L, **Inside!**

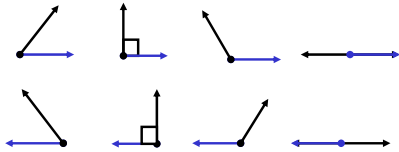


Basic Angles of Geometry

Fundamental Angles are measured from 0° to 180° .

Angle measures from **Initial Ray** to **Terminal Ray**!

Acute 0° - 90° **Right** 90° **Obtuse** 90° - 180° **Straight** 180°



Interactive & Hands-On

Student **Collaborative & Interactive** Activities!

Paper & Protractor are **traditional** class activities!

Virtual Protractors are **contemporary** 21st Century!

Play ([What's My Angle?](#)) on the World Wide Web!

21st Century Activities

Real World Experience with **Linear & Angular** ideas:

Use **Google Earth**: Awesome Virtual investigations!

Use **Virtual Earth**: Awesome Virtual investigations!

These virtual experiences are **motivating** activities!

