

Yo...

# Measurement, Precision, Accuracy and Error..

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# Measurement

- Why do it?
- What is it important?
- Units...

# Observation

- Direct
  - You do it
  - 5 senses
- Indirect
  - You do it with help
  - From equipment

# Precision

- Is your data repeatable?
- If it is – you are precise!

# Accuracy

- How close are you to the “right” or “exact” answer?
- If you are – you are accurate!

# Archery!



# So...

- Accuracy comes from? \_\_\_\_\_
- Precision comes from? \_\_\_\_\_

# Errors

- What are they?
- What causes them?



# Systemic Errors

- Errors with the “system”.
  - Calibration
  - Observation
  - can be controlled or minimized

# Random Errors

- There are Random!!!
  - Unpredictable
  - Cannot be controlled or fixed