BSI Activity Form

Name of Activity:
Measurement, Conversions, and Ratios

Class:
MATH 38

Topic(s):
Work with U.S. and metric length measurements.
Conversion between metric measurements.
Create ratios using metric and U.S. measurements.

Prerequisite Skills (Optional):
Familiarity with ratios.
Basic knowledge of circumference (formulas are not necessary).
Familiarity with conversions is <u>not</u> necessary with this activity.

Materials Needed:
Measuring tape that bends and measures in inches and centimeters or millimeters
Pencil
U.S. and metric conversion table for length (the last page of activity worksheet)
Measurement, Conversions, and Ratios Activity Worksheet

Time:
1 hour (at least)

Grouping Description:
3 students per group

Activity Implementation:
This activity is designed as a discovery activity and would be most beneficial at the beginning of the chapter on U.S. and metric measurement. Conversion knowledge is not necessary for this activity, but a general discussion on basic length conversion can be added to the beginning of the activity at the digression of the instructor.

Places the student may need some guidance.
- Correctly measuring items from the zero and not the end of the measuring device (unless the zero is at the end of the device)

Deliverables: (What will students produce?)
One report per group:
Your report should include the following:

1. **Introduction:** Explain the purpose of this activity.

2. **Describe** the procedure for each of the following, including any challenges you had.

   a) Using the measuring tape to measure in inches, centimeters, or millimeters.
   b) Converting between metric measurements only.
   c) Converting between U.S. measurements only.

3. **Data and Analysis:** Complete the MEASUREMENT, CONVERSION, AND RATIOS activity worksheet.

4. **Conclusions:** Explain in a few sentences what math you learned here, what particular concepts and problem solving strategies helped you as worked through converting measurements and how your ratios compared with two other groups. How can you connect your experience during this activity to something outside the classroom?

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