



Measure Your Feet Day

Who knew January 23 was such a special day?

January 23 is Measure Your Feet Day, so that's just what your students are going to do! This activity can be done individually, but it's also a great activity for small groups.

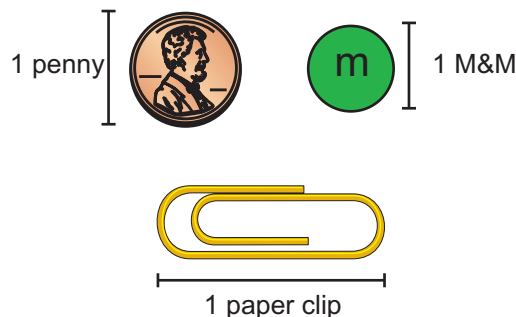
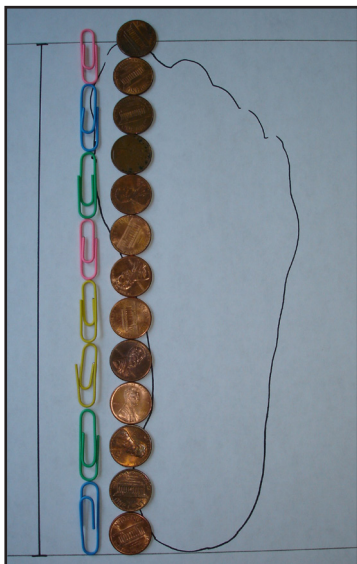
MATERIALS NEEDED

- Blank piece of paper for each student — or two if your students have big feet!
- Per group: approximately 10–15 paper clips, 20 M&M's® per student, 15–20 pennies, ruler with centimeters, and any other objects that can be used for measuring length in various units
- Calculators
- Copies of the Measure Your Feet Day Activity Sheet

MEETING PLAN

Have each student trace his or her right foot on a blank piece of paper. It might be easier to have a partner do the tracing. Then with the ruler, each student should draw two parallel lines — one at the tip of the longest toe and one at the very back of the heel. Finally, the student should draw a line perpendicular to each of these two lines. This final line represents the length of the foot. During this process it will be helpful to give hints as to how to best go about drawing these parallel and perpendicular lines as accurately as possible.

Now encourage each student to measure the length of her foot by using a variety of units of measure. The ones we are suggesting are paper clips, pennies, M&M's and centimeters. Be sure to show students what is meant by a length of 1 paper clip, 1 penny and so on. Also encourage students to approximate fractions of the unit of measure. The length of a student's foot probably won't be exactly 7 paper clips long; it might be more accurate to say $6\frac{2}{3}$ paper clips long. Once all students have had a chance to do the various measurements, they can fill in the table in Section I of the Measure Your Feet Day Activity Sheet.



Students then can go on to Section II of the activity sheet. First, students can estimate how the different units of measure they used are related to each other, and then they can use proportions to calculate the relationships based on their own foot measurements. Once students have had a chance to do this, they can share their findings. While the lengths of students' feet will be different, the answers in Section II should all be about the same, with some variation due to rounding errors in the initial measurements.

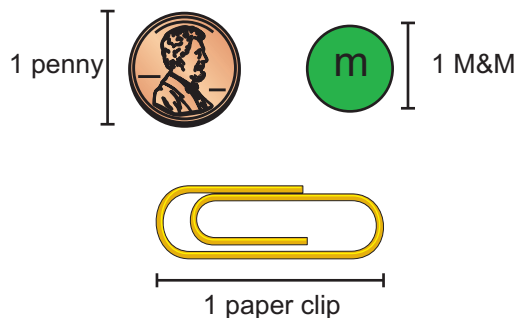
Section III again uses proportional reasoning and expands students' understanding of these concepts. Can they make generalizations now about fictional units of measure and/or units of measure related to those they have already used? Remember, this shouldn't feel like just filling in a worksheet—let the students talk to one another and have a good time with this!

Measure Your Feet Day Activity Sheet

Section I

Length of Your Foot

units	length
paper clips	
pennies	
M&M's®	
centimeters	



Section II

Best guesses/estimations based on the information in the table above:

1 paper clip = ____ pennies 1 penny = ____ M&M's 1 M&M = ____ cm

Values determined by calculating proportions based on the information in the table above:

1 paper clip = ____ pennies 1 penny = ____ M&M's 1 M&M = ____ cm

Section III

If 1 penny = 3 daps, how long is your foot in daps? _____

Is it possible for a foot measuring 100 glips in length to be shorter than a foot measuring 5 glops in length? Explain why or why not. _____

If the length of 9 pennies is approximately the same length as 7 quarters, how long is your foot in quarters? _____

If the length of your foot is equal to 125 wisps, what can you tell about the length of a wisp compared with the length of a paper clip? If the length of your foot is equal to 2 gops, what can you tell about the length of a gop compared with the length of a paper clip? _____
