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**“Making Mathematics Culturally Relevant with
Areas of Moccasin Patterns”**

Native American students are at high risk educationally, in part, because of the mismatch between the perspectives from which math is traditionally presented in schools and the general culture orientations of Native American Indians (Cajete' 1999)

It is important that students are encouraged to recognize and understand mathematics in many cultures, especially their own, and feel good about their mathematical learning. An important component in today's education should be to reaffirm, and in some instances to restore, the cultural dignity of children (D'Ambrosio, 2001 p. 1).



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Making the Moccasin Pattern

Directions for Making Your Own Moccasin Pattern

Making the sole pattern:

Have a friend trace your foot on a piece of butcher paper.

Round the edges to make a smooth figure.

(See fig 2)

Mark $\frac{1}{4}$ inch around the foot figure. This is the Sole Pattern. Cut out. *(see fig 2)*

Flip the pattern, trace, cut out for the other foot.

Making the top of the moccasin pattern:

On a new piece of paper, measure $\frac{1}{2}$ inch up from the bottom.

Lay the middle of the heel of the Sole Pattern at that $\frac{1}{2}$ inch mark and trace it.

Measure from the middle of the sole pattern to the outside of the line created from the widest point and compare that to the other side creating a line of equal distance on the opposite side along the bottom of the paper.

(See lines in fig 3.)

Lastly measure $\frac{1}{2}$ inch around the new figure. Cut it out. Fold the top patten piece in fourths lengthwise. The fold the patten in half width wise. Mark in the middle at the fold and $\frac{1}{2}$ inch from the fold toward the top of the pattern on the quarter folds. Cut from the bottom of the pattern to the half mark and to each of the marks on the quarter folds. *(See Fig 3)*

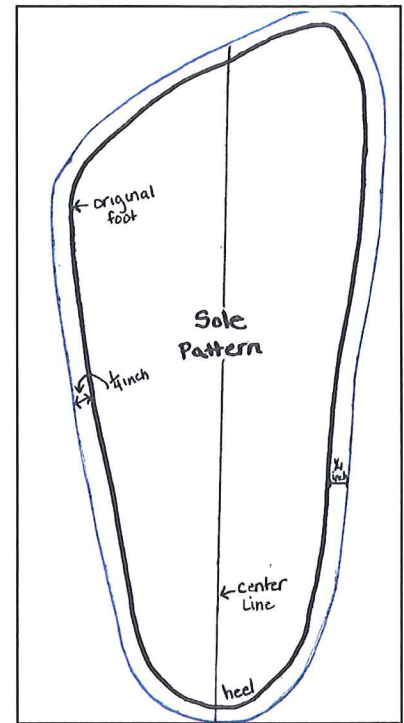


Figure 2: Sole Pattern

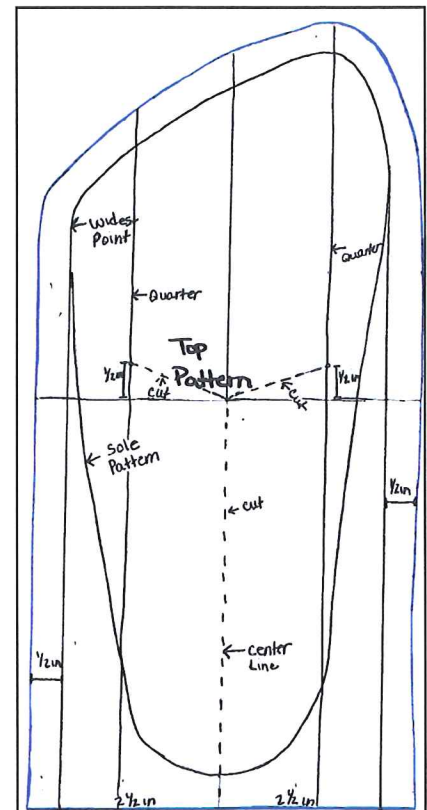


Figure 3: Top Pattern

