

HOW TO CUT A CONE SHAPED PATTERN

By R.W. Rogers

R.W. Rogers submitted this leathercraft tip from an article he read in *Popular Science* 53 years ago.

Here is the way I find the cutting pattern for lamp shades and cowboy cuffs or anything that needs a cone shaped pattern.

Determine the desired two diameters and height of the frustum as in **Figure 1**. On a large sheet of pattern paper, layout line (A) the same length as diameter (A) in **Figure 2**. With a compass or a square, construct a perpendicular centered on line A and mark off the required height (C) of the frustum. Mark off line (B) parallel to line (A) and on the each side of A and B mark off a line to (X).

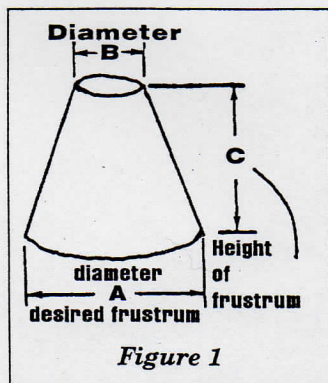


Figure 1

With a compass set from X to Y draw the large arc as shown in

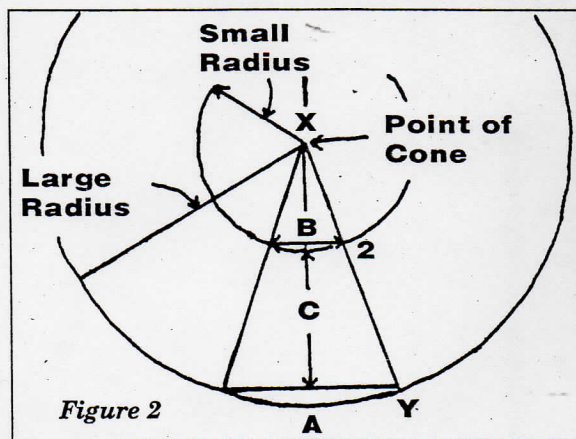


Figure 2

Figure 3 with the compass set from X to Z draw off the small arc.

To find the length of the pattern multiply diameter (A) by pi (3.1416). Set a pair of dividers to as small a fraction as is possible. For example, if the circumference thus determined is found to arc 16, then set the dividers to one inch.

Starting from a base line running from the large radius to the point; mark off with the dividers the number of spaces necessary to give the required circumference. From this finishing point, draw another base line to the center point.

The area bounded by the start and finishing lines and the two radiuses is the required pattern. Since the dividers actually measure a small cord rather than an arc, a slight error is involved. For most practical purposes, this is negligible. Always make a paper pattern and fit it, then any adjustment can be made before cutting your leather. ☆

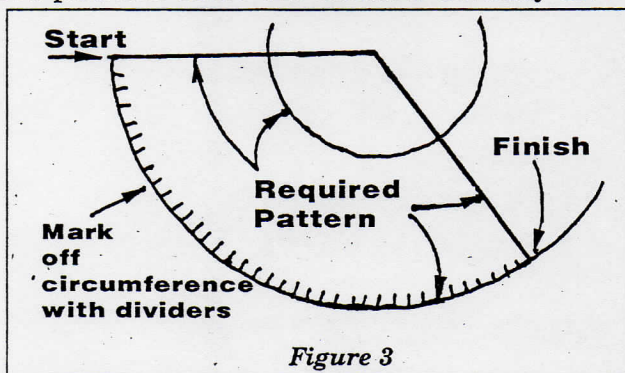


Figure 3