

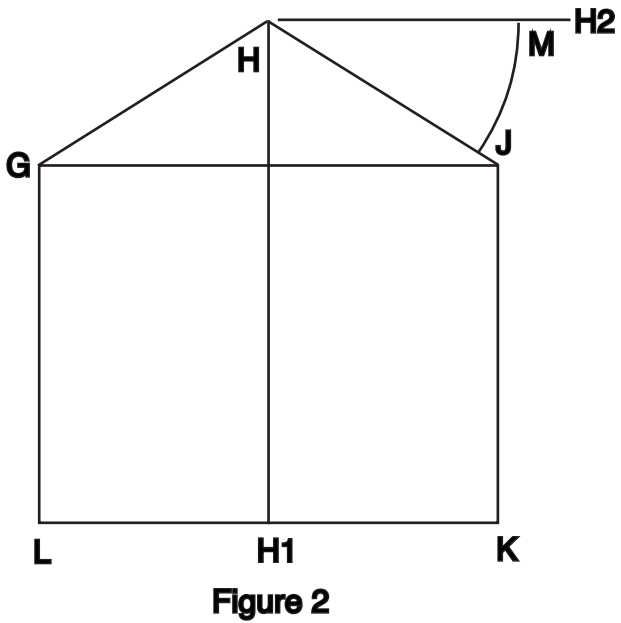
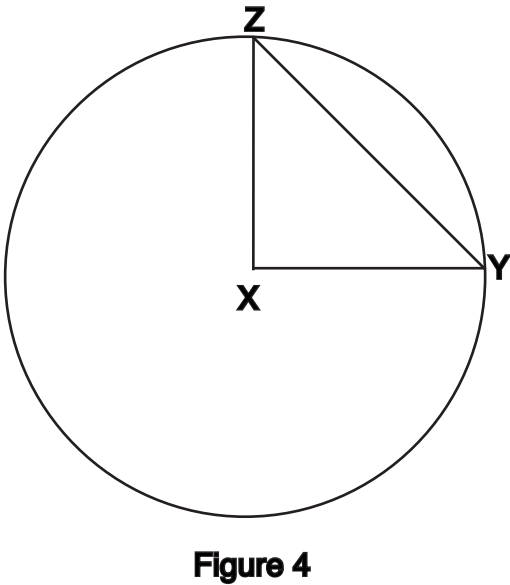
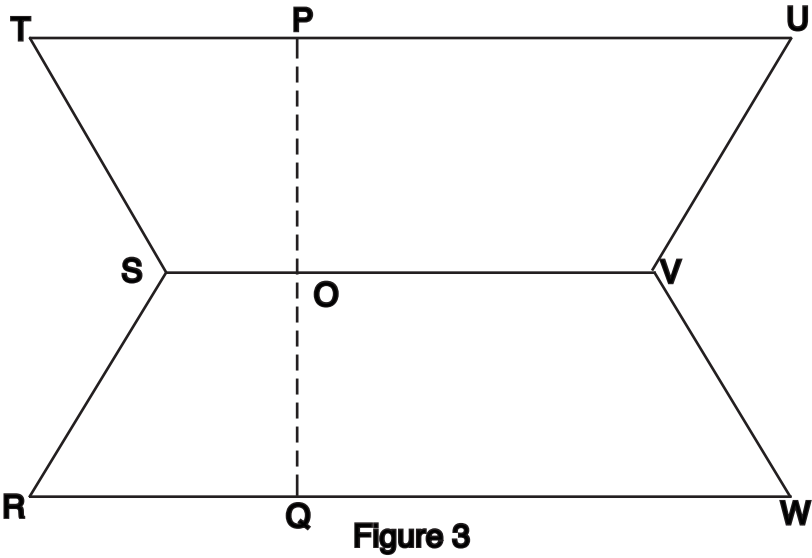
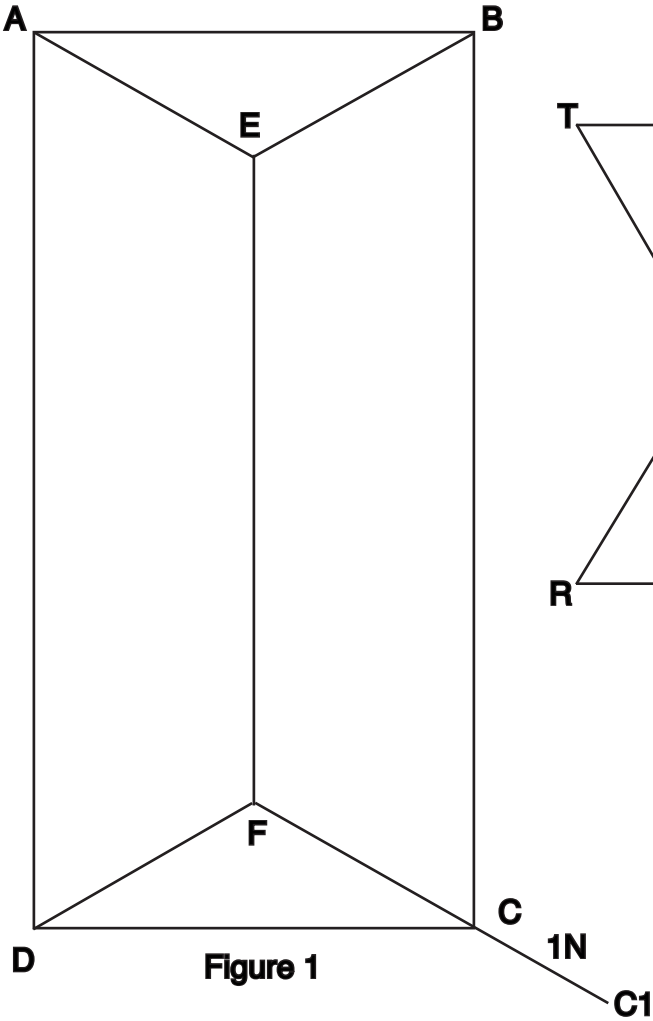
Rectangular Tent Layout Description

1. Draw the tent top view as it would actually be seen looking directly down from the top and draw it to show only the actual ground covered when it is set up as shown in Figure 1. Additional side poles and center poles may be added as they make no difference in the layout of the tent top. Project line F-C-C1 down some distance on the paper.
2. Draw the side view of the tent as looking in from one side and the actual section at the center pole. This is shown in Figure 2 as G-H-J-K-L. G-L and J-K are the side poles and H-H1 is one of the center poles. Draw line H-H2 out horizontally from H or the top of the center pole. Take your compass or dividers and set then for the distance H-J. Next draw the arc J-M and project the point M up onto drawing on Figure 1 until it intersects the projection of line F-C-C1 at the point N. Line F-N will now give you the true radius of the circle which makes your triangle shaped ends. This dimension cannot be gotten in any other way as line F-C in Figure 1 or E-J in Figure 2 are not a true dimensions as they do not lie in the plane of the paper but actually project out.
3. Your odd shaped piece for the top exclusive of the two triangles is obtained in this way. Draw line S-V as in Figure 3 and make it the same length as line E-F of Figure 1. This is the ridgeline between the center poles that are furthest apart. Again set your dividers to line F-N of Figure 1 and measure a distance each way from line S-V. These are shown by the dotted lines O-P and O-Q in Figure 3. Next draw the line T-U and R-W through these points P and Q both parallel to each other and parallel to line S-V (Figure 3.) Point U and W must be equidistant from point V and points T and R must be equidistant from point S. T, R, U and W will now be the corners of the top. In drawing the pattern on the cloth, add one-half inch to line T-U and also to line R-W for the hems. The seams will be taken care of on the triangular pieces.
- 4 Next draw the pattern for the triangular pieces. To do this draw circle Y-Z as shown in Figure 4, using the dimension F-N of Figure 1 for the radius. Draw any radius as Y in Figure 4. Set your compass to line G-J in Figure 2 and mark this space off on the circle using point Y as a starting point. Draw line Y-Z and the radius X-Z. This is one of the triangular pieces for the end. The other will be the same. When tracing on the cloth add one-half inch for hem on line Y-Z and one-half inch on both lines X-Y and X-Z. This will be the seam when sewed on the odd shaped piece. Add your grommets for poles and guy ropes and the tent is ready to set up.

Tent Construction			
Round & Rectangular Layouts			
DATE: 1960's	SCALE: None	SCANNED & REVISED: 01/29/02	Pg 1 of 4

Circus Model Builders	
Drawn By Raymond Heim	DRAWING NUMBER #0018

Horse Top Layout



Tent Construction Round & Rectangular Layouts

Round Tent Layout Description

Basically this is the same as laying out for the square tent but has some variations as follow.

1. Draw the semi-circle of one end of the tent as it would actually be seen looking down directly from the top. Draw it to show only the actual ground covered when it is set up as in Figure 5. This is shown by line A-B-C-D-E-F-G-H-J-K-L-M-N. The diameter of the circle is line A-O-N. Now divide this semi-circle into any number of equal parts. The more parts you divide this circle into the more accurate the layout. I would not use parts less than where the chords J H, etc. are larger than three inches. For clarity I would not divide this into more parts that would make the chords smaller than one inch. Use your own judgment but remember the more equal parts the better. Point O in Figure 5 will be the position of the center pole nearest that end. The other points may be used as spacing for the side poles. If you wish to divide the round top into quarters like the bigger big tops do exactly as above but use a quarter circle instead of a semi-circle. Follow this through all the way as below but use a quarter circle where we have specified a semi-circle.
2. Again draw the side view of the tent looking in from one end as in Figure 6. Q-T and O-U will be the side poles and P-P1 will be the center pole. (Center pole up to the ridge only not including the extra length for blocks and tackle, etc.) The quarter poles may now be drawn in as shown by the dotted lines. In this case two sets of quarter poles are shown. They are as S-S1 for the red quarters and R-R1 for the blue quarters. Those may be measured for the actual length of the quarter poles by adding one half inch to each measurement and it is a lot easier to obtain this dimension this way then by trigonometry. In this case O-P is a true dimension and may be used as the radius of the circle as this line lies in the plane of the paper this time.
3. Now, using O-P as the radius (Figure 6) draw a semi-circle as shown by X-Y-Z-V of Figure 7. V-W-X will be the diameter. Set your dividers to the dimension of one of the chords in Figure 5 (as H-J) and divide this circle into the same number of parts as you did in Figure 5. Draw your radius W-Y. (I started dividing on diameter V-W-X at point V). The figure V-Z-Y-W will not be a true pattern of the one end of your round top. Note that this is not a perfect semi-circle but is somewhat short of being one.
4. Transfer this pattern to your cloth and add one half inch all around for hems except on one straight side (like V-W) where one inch will be added. Half of this is for the seam and the other half is the overlap for your lacing holes. This will have the grommets for holes and side V-W will have the loops for the lacing. Be sure and reverse this for the other end so that laced together you can have a perfect round top. The middle sections will be the length of the diameter V-W-X and as wide as the distance between your center poles.
5. Add your grommets for pole pockets and the guy ropes. Reinforcing ropes are also stitched in for this piece.

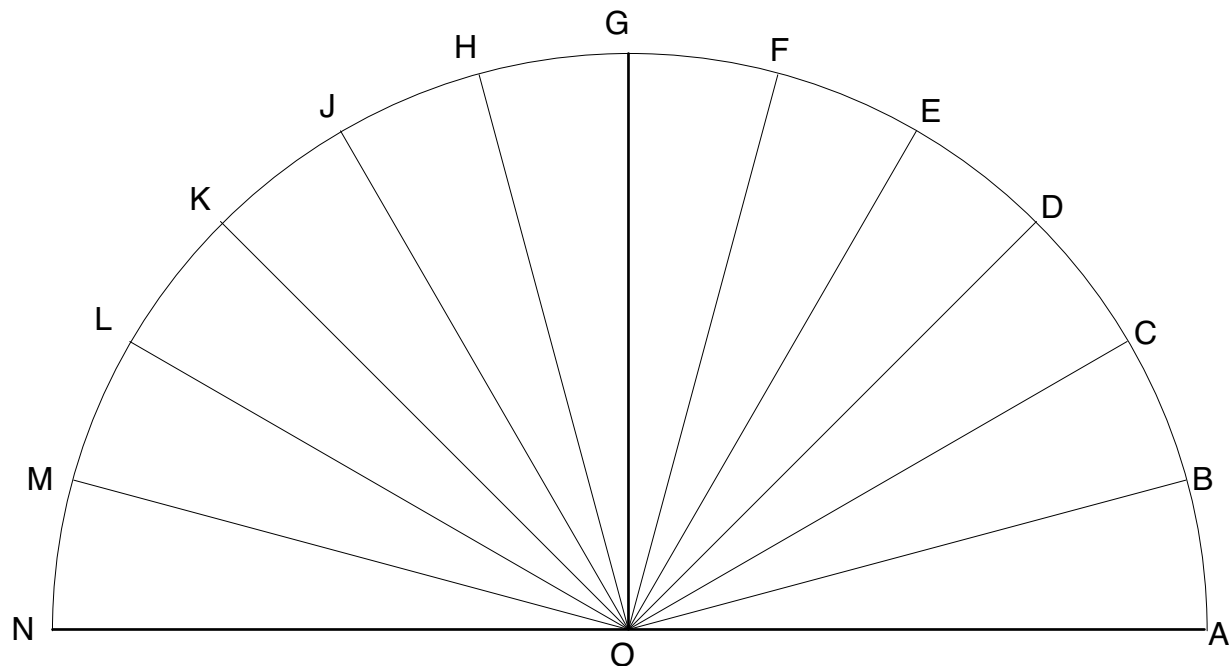


Figure 5

Tent Construction Round & Rectangular Layouts

Round Top Layout

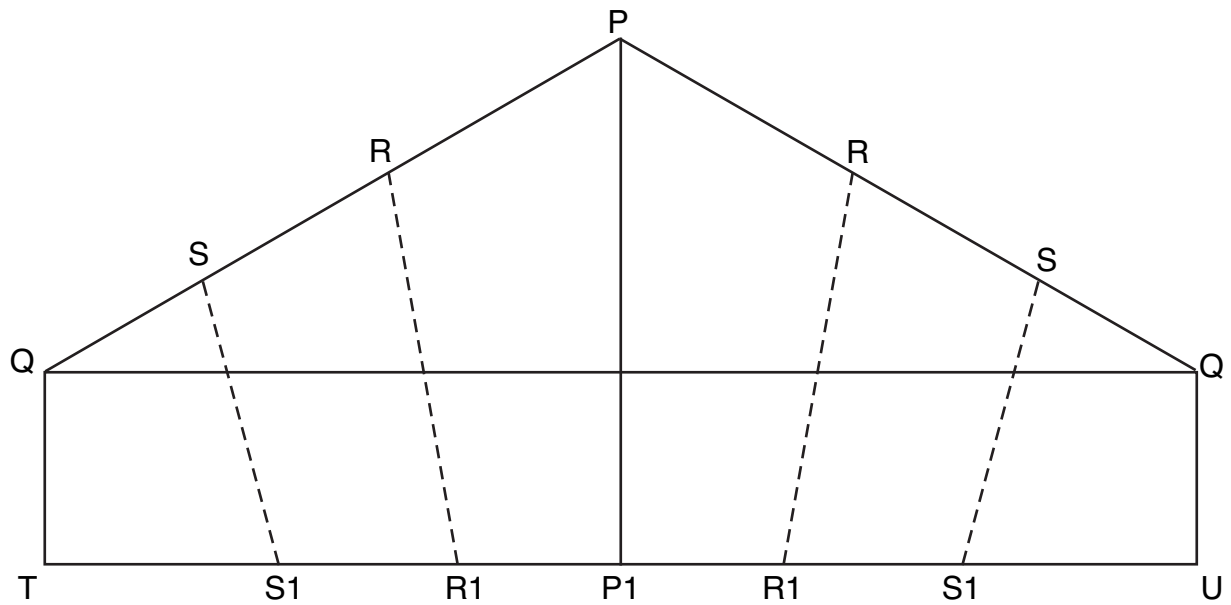


Figure 5

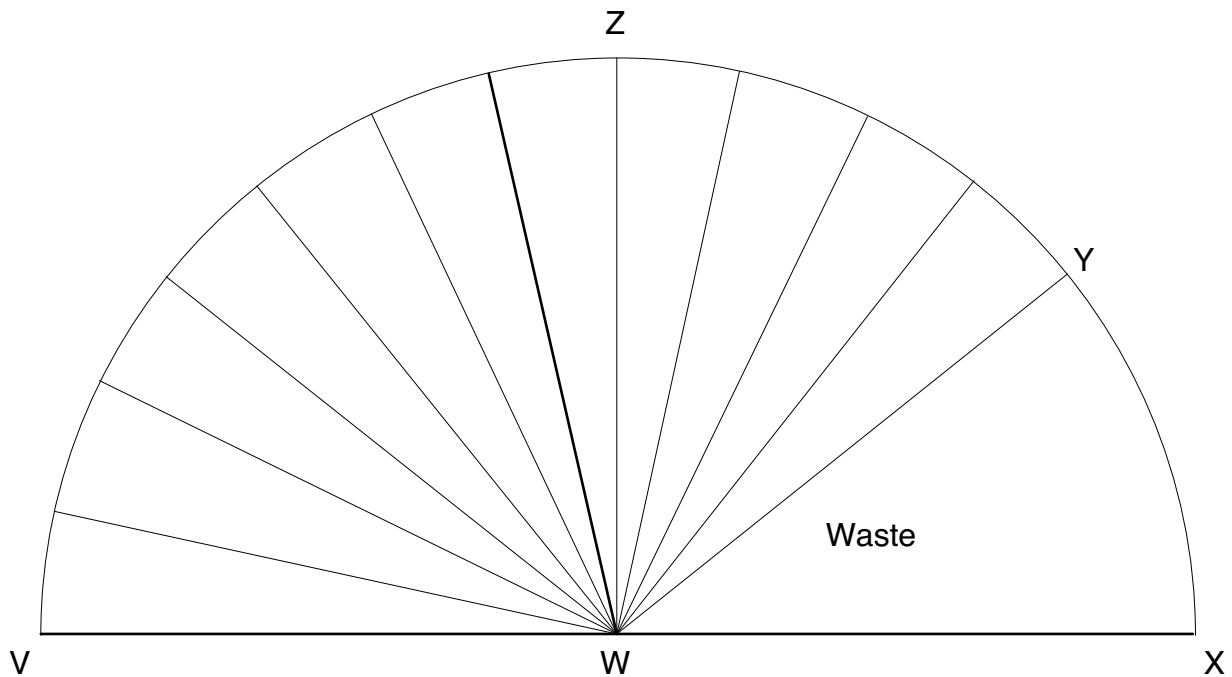


Figure 6

Tent Construction Round & Rectangular Layouts