

The Free Range 'Tri-Tent'

Years ago, at some of the free festivals around Oxfordshire/Berkshire, someone used to bring along two large tarps, a long pole (in sections) and a load of rope. In about half an hour they erected a weird looking triangular tent that a bunch of people could shelter/doss inside. Thinking about how we might easily set up some bigger events in fields/at festivals over this summer it occurred to me that this design would be ideal.

Thinking back I managed to work out how the tent was made (took a little work – my mind was a bit hazy at those events!). Basically you create an equilateral triangle, stick the pole in the middle, throw ropes over it and then drag the two tarps over (see diagram). The front of the tri-tent (where the door is) is the line AB. The back is at the point C.

The two tarps have to have a dimension (width to height) of 2:1 (e.g, 40' x 20'). Every other dimension is a mathematical product of the length of the longest side. The distance between AB, BC and CA is the length of the longest size of the tarp. The height of the pole will be 0.41 the length of the longest side. The amount of rope needed (leaving a lot of slack) is five times the length of the longest side.

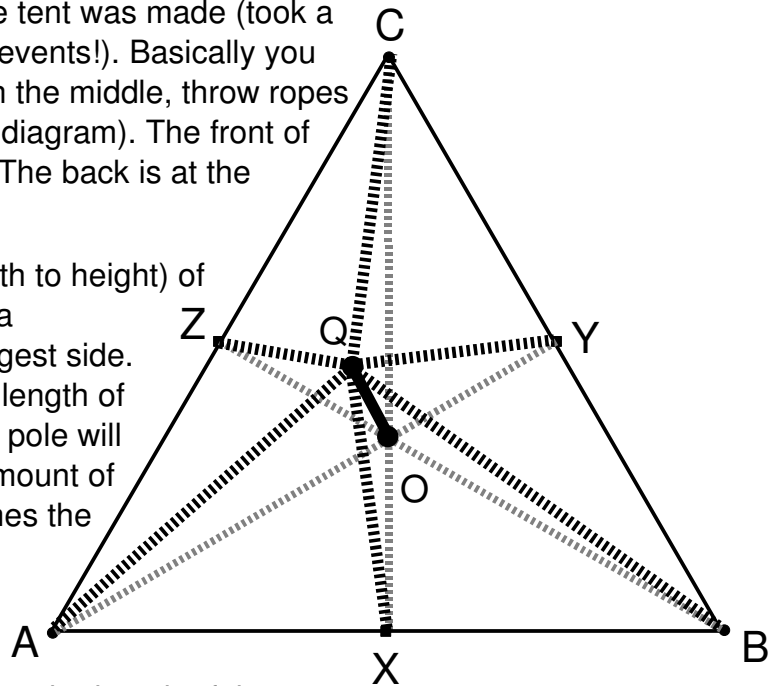
To begin erecting the tent you'd have to find points A, B, C, X, Y, Z and O. You can do this with two lengths of rope, exactly as long as the length of the longest side of the tarp, with a mark/knot at exactly half this length:

1. Layout A-B on the ground using one length of rope and mark with pegs. Holding one end of either rope at A and B, where the two taught ropes meet together is point C (mark it). Where the marks/knots in the ropes occur between each corner of the triangle, this denotes the position of X, Y and Z (which need to be marked).
2. Take one rope and stretch it from A to Y, and the other and stretch it from B to Z. Where they cross is point O (the accuracy can be check by stretching another rope between C and X).

To erect the tent you put the pole in the ground at point O. Then:

1. Fix a rope at point A, run it over the top of the pole and fix it tightly at point Y. Repeat for B to Z and C to X (in practice, it's probable going to be easier to fix the ropes to the top of the pole before you put the pole up). The pole should now be held firmly upright.
2. Take the first tarp and fix the middle of the top edge to the top of the pole (point Q). Fix the bottom left corner to B and the bottom right to C. The top left corner will now fold to X and the top right to Z. Take the second tarp and fix the middle of the top side to point Q. Then fix the bottom left corner to C and the bottom right to A. The top left corner will now fold to Y and the top right to X.
3. The door is created by folding back the flaps in the tarps around point X. One side, or both, could be tied up with rope.

How big the tent is depends upon the size of the tarps. Machine Mart have 40' by 20' tarps for £41 (light blue or green) or £59 (khaki-camouflage). A 700' coil of 8mm polyprop rope costs £15. So the whole tent would cost about £100 (for a light green/blue version) or £140 (for a camouflage version)

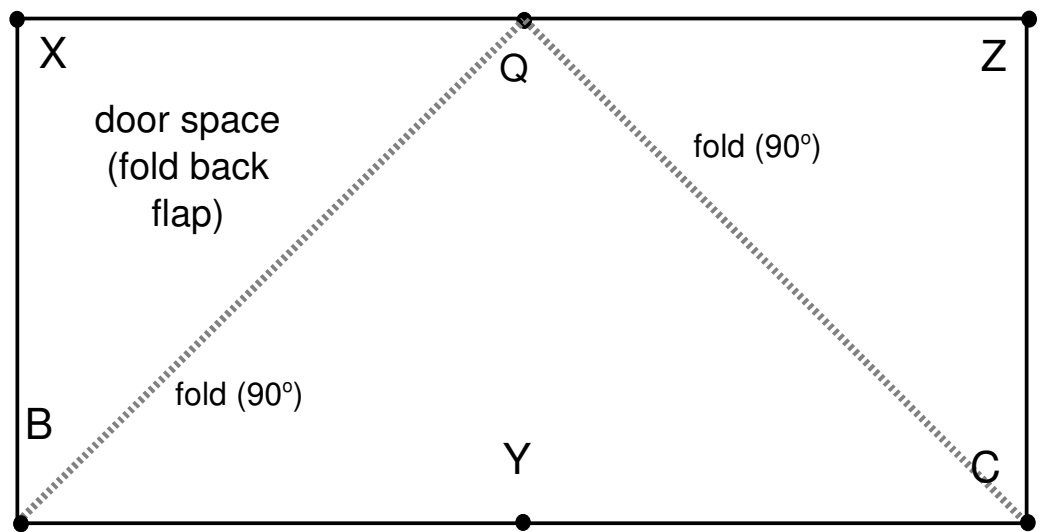


– my personal favourite!).

How many people would it fit? Assuming a person sitting on the floor occupies 3 to 4 sq. ft., you could cram in 30 to 40 people without their heads hitting the walls of the tent. Assuming that you used the back of the tent for displays/workshops, this would reduce the seating to 15 to 20, but this could be extended by opening out the two front flaps to allow people to spill out of the front.

Whadya think? – fancy organising some events in fields and forests this summer?

Just in case you'd like to make a model to see what a tri-tent looks like, cut out the the two tarps below, fold and glue them together. At this scale, assuming you use 40' tarps, a person would be about 2cm high.



glue hatched area an fix to other 'tarp'

