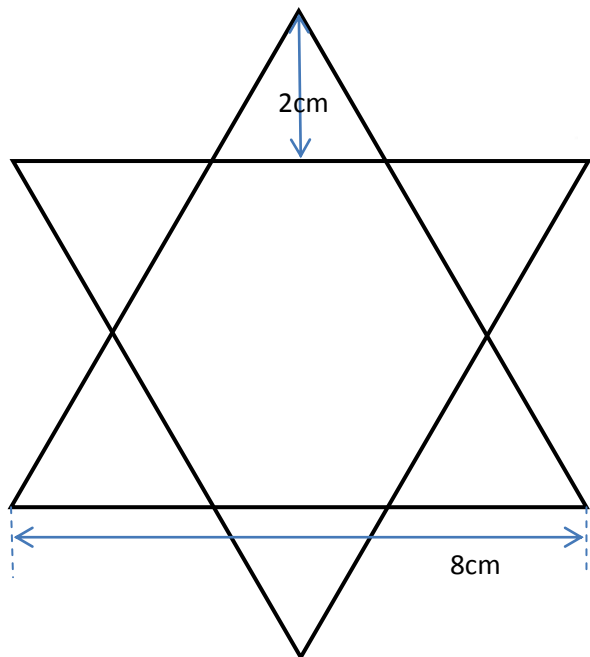


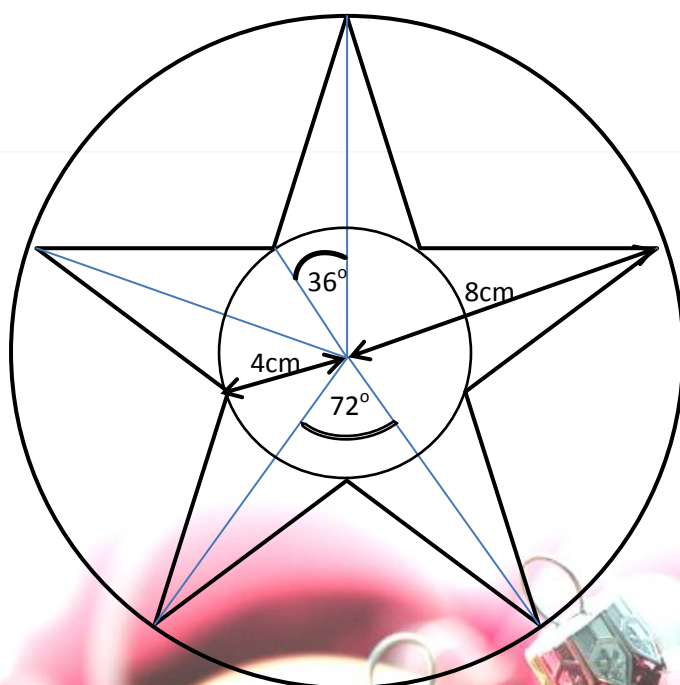
Christmas Stars

Construct these stars using the given measurements:



Hints:

- These two triangles are congruent and equilateral.
- You could use a pair of compasses...
- You could use a protractor...

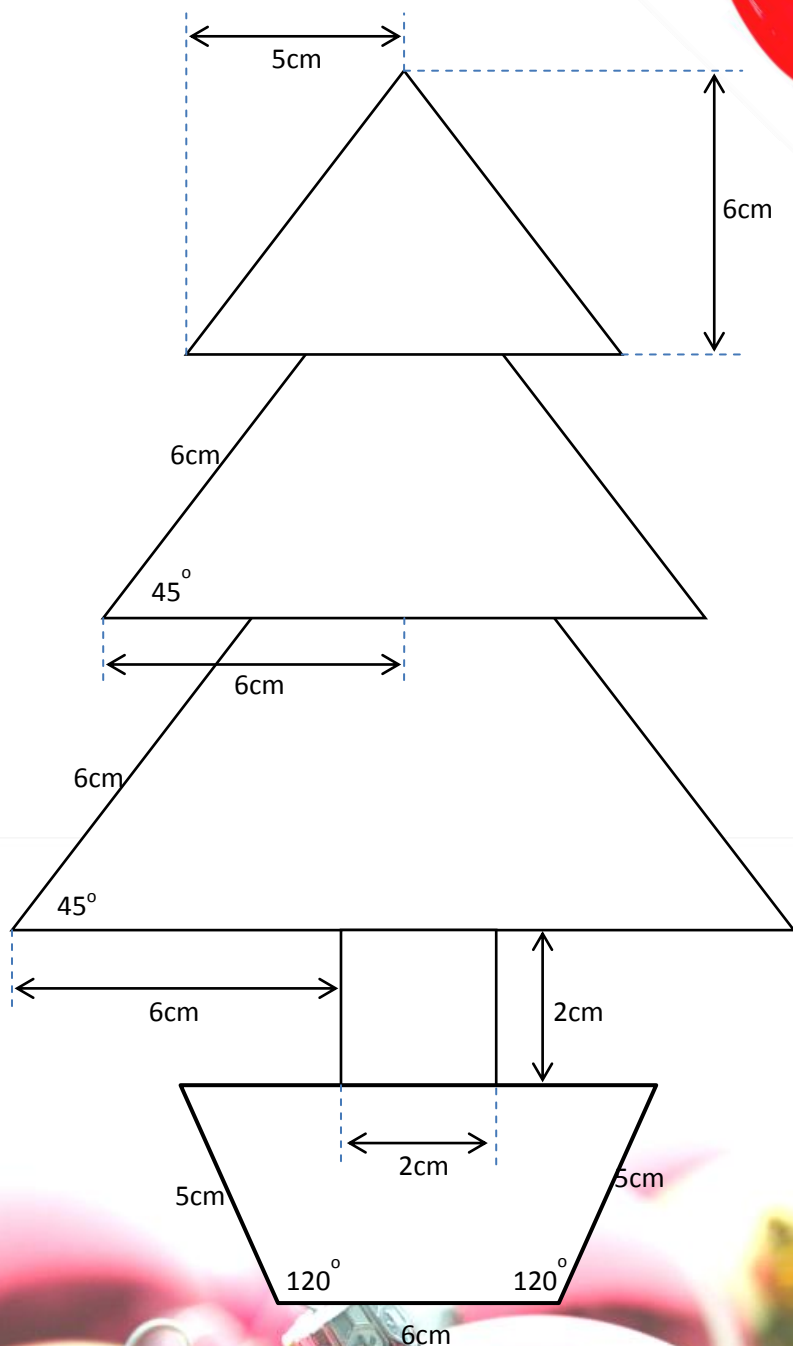


Hints:

- Start by drawing the two circles and then working with the angles...

Christmas Tree

Construct a scale model of the Christmas tree using a pencil, ruler and pair of compasses only! All the protractors have been given to the Elves!



What can you say to describe the three triangles on the Christmas, mathematically?

Christmas Angle Angel



Follow the instructions below to construct your own Angle Angel.

1. Draw a vertical line of length 13cm (Body line).
2. At the top of the line, construct a circle with radius 2cm, with centre at the end of the line. (This forms the head of the angel.)
3. Using the same centre point, construct a semi-circle with radius 3cm above the circle to form a halo.
4. Draw the perpendicular bisector of the original 13cm line, of length 13 cm.
5. Construct an isosceles triangle on this line with remaining lengths of 8cm. (This forms the wings.)
6. Construct angle bisectors at the two equal angles in the isosceles triangle.
7. Mark a point 8cm down the body line, from the head.
8. Construct another isosceles triangle from this point with base of 4cm and two equal lengths of 8.5cm. The triangle should be constructed symmetrically around the body line. (Forms the body.)
9. Construct a further isosceles triangle underneath this body, using the 4cm line as the base of the triangle and the remaining two lengths of 3.5cm.
10. Construct two inverted, congruent triangles to the left and right to form the base of the angel.

