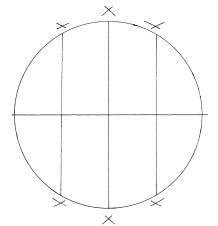


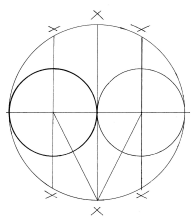
Chestahedron Construction

by Matt Taylor

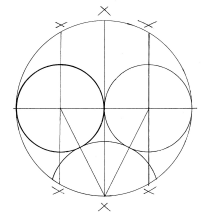
1. Draw a horizontal line across the middle of the page then place the compass point on the line and construct a circle on the left side of the page.
2. Bisect the diameter of the circle (horizontal line passing through the circle's center).
3. Bisect the left and right radii of the circle.



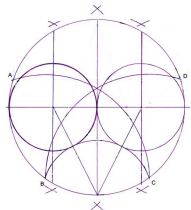
4. Construct two circles that are half of the original circle's diameter; their centers will be at the middle of the left radius and right radius respectively.



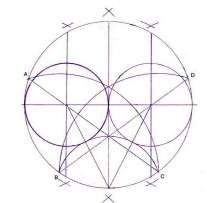
5. Draw a straight line from the bottom of the circle's diameter to the center of the two smaller circle's centers.



6. Place compass point at the bottom of the large circle's diameter, set compass width to intersection of the smaller circle's circumference and the straight line formed in step 5 and sweep an arc across the bottom of the larger circle. This arc will just touch the circumferences of the smaller circle.

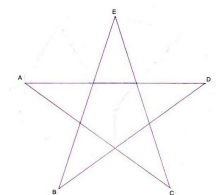


7. Place compass point at the intersection of the left end of the arc just created and the circumference of the larger circle (point B)—set the compass width to the other end of the same arc (point C). Construct an arc across the larger circle's circumference. Repeat from other side.

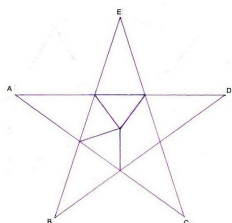


8. Align a straight edge from Point B to point D, construct a straight line—this is the first ray of the pentagram. Repeat from point C to point A.

9. Construct straight lines from the top of the circle's diameter and points B and C, forming the 3rd and 4th rays of the pentagram.

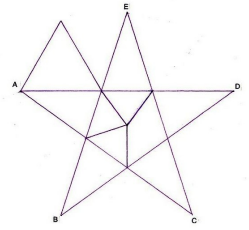


10. Construct a straight line from point A to point D, completing the pentagram.

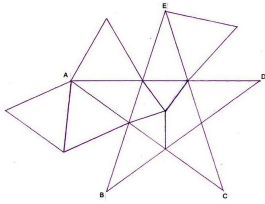


11. Find the center of the inner pentagon. Connect the base of the golden triangles to the center of the pentagram, forming the 3 kites of the Chestahedron.

12. Set the compass to the width of the leg of a golden triangle. Place compass point at the apex of the golden triangle and sweep an arc above the leg. Place compass at the other end of the leg and cross the arc just constructed, creating an equilateral triangle.



13. Repeat step 12 as indicated in the illustration.



14. Observe the 2 dimensional form carefully and imagine the triangles and kites moving into the 3rd dimension. Where they join edges is where you must include glue tabs to assemble your Chestahedron.