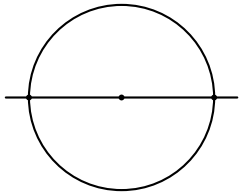
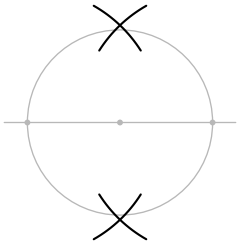
How to draw the sixteen-pointed star

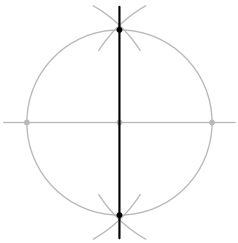
With a compass, a ruler and a pencil. Press lightly: construction lines are erased at the end.



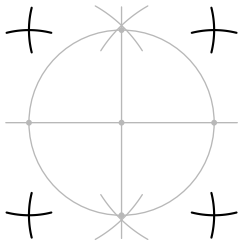
1. Draw a circle and mark its centre. Rule a line through the centre: it meets the circle at two points.



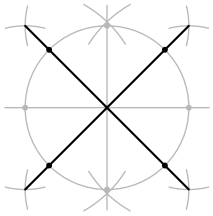
2. Open the compass wider than the radius. From each of the two points, draw an arc above and below.



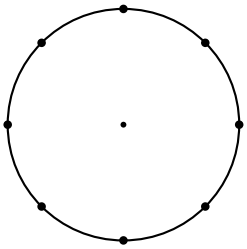
3. Rule a line through the two crossings. It passes through the centre at a right angle: four points.



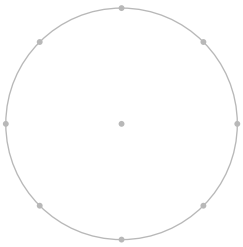
4. Set the compass to the radius. From each of the four points, draw arcs outside the circle: neighbouring arcs cross in four corners.



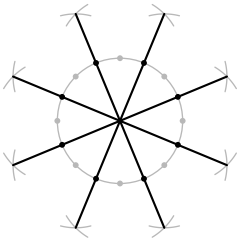
5. Rule the two diagonals from corner to corner through the centre. They cut the circle at four more points.



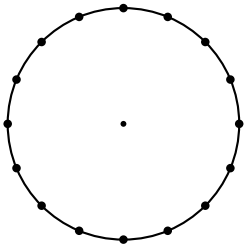
6. Eight points, exactly 45° apart: the starting point of every eight-fold star.



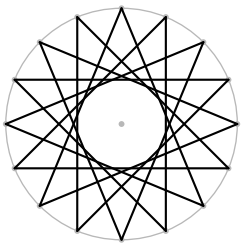
7. Keep the compass at the radius. From each point, draw an arc outside the circle: arcs from neighbouring points cross between them.



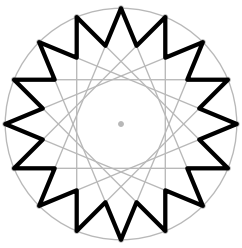
8. Rule a line from each crossing to the centre. Where it cuts the circle is a new point, halfway between two old ones.



9. Sixteen points, 22.5° apart.



10. From one point, rule a line to the sixth point along. Repeat from every point, always counting the same way.



11. Go over the outer edge in ink, from point to notch to point. Erase every line inside and the circle.

The sixteen-pointed star

Colour ring by ring from the centre out: the sixteen-fold symmetry shows.

