

15. Construct an angle of 30° . With the bevel construct two other angles equal to it, one on each side of the first, the three bounding lines radiating from the same point. What positions do the outside lines of your figure occupy with respect to each other, and why? Test with an instrument.
16. Construct an angle of 60° . With the bevel construct five other angles equal to it, each adjacent to the preceding, the bounding lines all radiating from the same point. What positions do the first and last lines of these angles occupy with respect to each other, and why?
17. In the figure of the preceding question, if O be the point from which the lines radiate, measure off with the dividers on these lines equal lengths, OA, OB, OC, OD, OE, OF. What do you observe as to the lengths AB, BC, CD, DE, EF, FA?
18. Fold a piece of paper so as to get a straight crease. Fold the crease over on itself. How many degrees in each of the four angles so obtained, and why?
19. With a needle mark two points. Join them, using ruler and a fine pencil. Turn the ruler over to the other side of the two points and again join them. What quality in the ruler may you test in this way?
20. At points on your paper some distance from one another, construct two angles, as nearly as you can judge, equal. Test with an instrument the correctness of your judgment.
21. Through what angle does the minute-hand of a clock move in 20 minutes? Through what angle does the hour-hand move in the same time?
22. Describe a circle, and, supposing it intended for the face of a clock, mark the points where the usual Roman numerals should be placed.
23. One side of a piece of paper being a straight line, tear the remaining boundary into any irregular shape. With your protractor convert this paper into a protractor, so as to mark angles at intervals of 10° , the markings being on the irregular edge of the paper.