

1 Draw two lines crossing each other. How many angles are formed by these lines? Point out the two angles whose sides extend in opposite directions. These are vertical angles. Define *vertical angles*.

2. Draw two angles that have a common vertex and a common side between them. These are adjacent angles. Define *adjacent angles*.

3 Measure with the protractor the sum of two adjacent angles.

4. Can you show without a protractor that the sum of two adjacent angles is equal to two right angles?

5. Find the supplement or adjacent angle of each of the following angles: 40° ; 80° ; 60° ; 120° ; 25° ; 160° ; 110° .

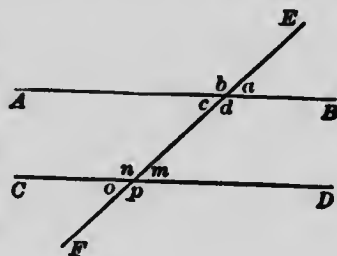
6. Compare with a protractor the size of any two vertical angles.

7. Can you show without a protractor that two vertical angles are always equal to each other?

8. Draw two lines crossing each other. Point out the adjacent angles; vertical angles. Find the sum of all the angles.

9. If one of the angles formed by two intersecting lines is 90° , what are the others? If one of the angles is 20° , what are the others?

10. In this figure, AB is parallel to CD . Point out the *internal angles*; *external angles*; *exterior-interior angles*; *alternate-interior angles*. Show with and without a protractor what angles are equal. What angles are together equal to two right angles?



11. Put the edge of a rule upon the top of your desk or upon the blackboard. If the rule touches the surface at every point, it is a plane surface. Define *plane surface*. Draw on a plane surface a figure bounded by straight lines. This is a polygon. Define *polygon*.

12. Draw, name characteristics, and define each of the following named figures: *triangle*; *equilateral triangle*; *isosceles triangle*; *scalene triangle*; *right-angled triangle*; *oblique-angled triangle*; *acute-angled triangle*; *obtuse-angled triangle*; *equiangular triangle*.