

1. Draw a quadrilateral. Draw diagonals. (How many?) Define *quadrilateral*. Define *diagonal*.
2. Draw and define *trapezium*; *trapezoid*; *parallelogram*; *rectangle*; *square*; *rhomboid*; *rhombus*.
3. Show with a protractor that the sum of the angles of a quadrilateral is equal to 360° . Can you show this without the aid of a protractor?
4. Can you show that the diagonal of a parallelogram divides the parallelogram into two equal parts?
5. Can you show that any two consecutive angles of a parallelogram are equal to two right angles?
6. Can you show that the opposite sides of a parallelogram are equal?
7. Can you show that the opposite angles of a parallelogram are equal?
8. Can you show that the diagonals of a parallelogram bisect each other?
9. If one angle of a parallelogram is 60° , what are the other angles?
10. Construct a rhombus with one side 2 inches long and with one angle of 40° . What are the other sides and angles?
11. Draw two lines each one inch long, and two lines each two inches long. Draw an angle less than 90° . From these construct a parallelogram.
12. Draw four lines of unequal lengths. Draw an angle of 70° . From these construct a trapezoid. What is the altitude of this trapezoid? the length of median line?
13. Draw an isosceles trapezoid. What can you show of the angles adjacent to one of the parallel lines?
14. Can you divide a parallelogram into 2 equal parallelograms?
15. Can you divide a rhombus into 4 equal right-angled triangles?
16. Can you divide an isosceles trapezoid into a parallelogram and an isosceles triangle?
17. Draw and define a *pentagon*; *hexagon*; *heptagon*; *octagon*; *nonagon*; *decagon*; *dodecagon*.