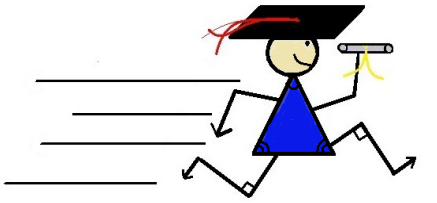
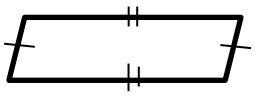
QUADRILATERALS SMART CARD

Volume 7, Chapter 3

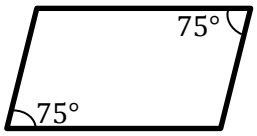


1. If a quadrilateral has one pair of sides that are both parallel and congruent, then the quadrilateral is a parallelogram.

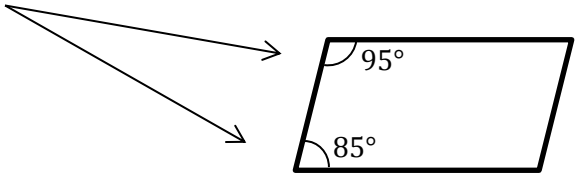
2. Opposite sides of a parallelogram are congruent.



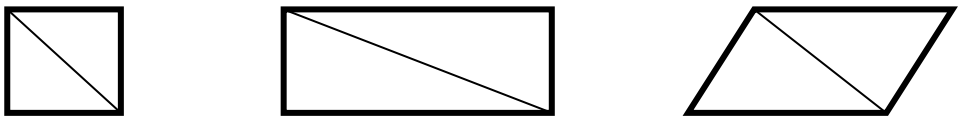
3. Opposite angles of a parallelogram are congruent.



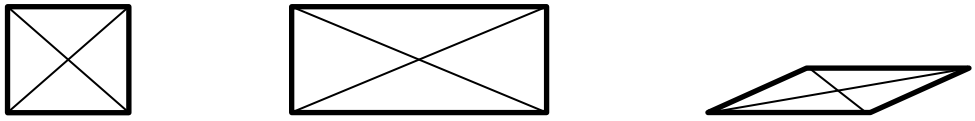
4. Consecutive pairs of angles of a parallelogram are supplementary.



5. In a parallelogram either diagonal separates the parallelogram into two congruent triangles.



6. The diagonals of a parallelogram bisect each other.



7. A quadrilateral is a parallelogram if any one of the following is true:
   - Opposite sides are congruent.
   - Opposite angles are congruent.
   - Diagonals bisect each other.

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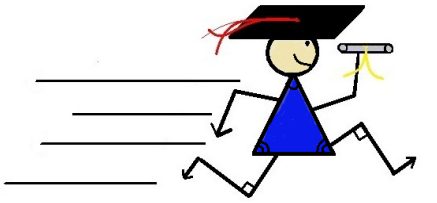
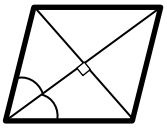
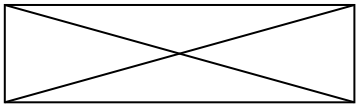


8. The diagonals of a rhombus bisect the four angles of the rhombus.

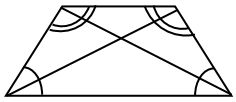


9. The diagonals of a rhombus are perpendicular to each other.

10. The diagonals of a rectangle are congruent.



11. The lower (and upper) base angles of an isosceles trapezoid are congruent.



12. The diagonals of an isosceles trapezoid are congruent.

13. A trapezoid is an isosceles trapezoid if any one of the following is true:
    - The legs are congruent.
    - The base angles are congruent.
    - The diagonals are congruent.

14. The median of a trapezoid is parallel to the bases and has a length equal to one half the sum of the lengths of the bases.

$$Median\ of\ a\ Trapezoid = \frac{1}{2}(b_1 + b_2)$$

15. The area of a rhombus is equal to one half the product of the lengths of the diagonals.

$$Area\ of\ a\ Rhombus = \frac{1}{2}(d_1 \times d_2)$$

16. The area of a parallelogram is equal to the product of the length of the base and the altitude drawn to that base.

$$Area\ of\ a\ parallelogram = Altitude\ x\ Base$$

17. The area of a trapezoid is equal to one half the product of the length of an altitude and the sum of the lengths of the bases.

$$Area\ of\ a\ Trapezoid = \frac{1}{2}h(b_1 + b_2)$$