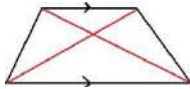


# SHARP

## Quadrilaterals and Their Properties

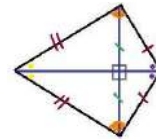
Quadrilaterals have 4 rigid sides.

### Trapezium



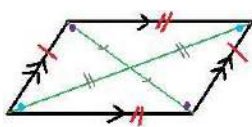
- One pair of opposite sides parallel

### Kite



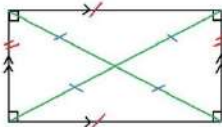
- 2 pairs adjacent sides equal
- 1 pair opposite angles equal (angles between unequal sides)
- The diagonal between equal sides bisects the other diagonal
- The diagonal between equal sides bisects the interior angles
- The diagonals intersect at  $90^\circ$

### Parallelogram



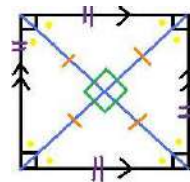
- Both pairs opposite sides equal in length
- Both pairs opposite angles equal
- Both diagonals bisect each other
- Both pairs of opposite sides parallel

### Rectangle



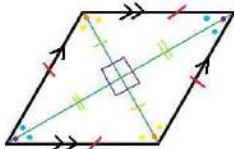
- All the properties of a parallelogram +
- All 4 angles equal to  $90^\circ$
- Diagonals equal in length

### Square



- All the properties of a parallelogram +
- All 4 angles equal to  $90^\circ$
- Diagonals equal in length
- Diagonals bisect each other at  $90^\circ$
- Diagonals bisect both pairs of interior opposite angles (i.e. all  $45^\circ$ )
- All 4 sides equal

### Rhombus



- All the properties of a parallelogram +
- All 4 sides equal
- Diagonals bisect each other at  $90^\circ$
- Diagonals bisect both pairs of opposite angles