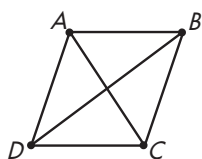# Lesson 8.4 Quadrilaterals

A **quadrilateral** is a polygon with four sides. Some examples are square, rectangle, parallelogram, rhombus, kite, and trapezoid.
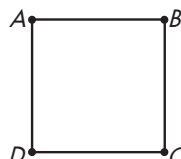
parallelogram
$\angle DAB = \angle BCD$,
$\angle ADC = \angle CBA$
$\overline{AB} = \overline{DC}$, $\overline{AD} = \overline{BC}$
$\overline{AC}$ bisects $\overline{BD}$, $\overline{BD}$ bisects $\overline{AC}$. $\triangle ADC$ is congruent to $\triangle CBA$.
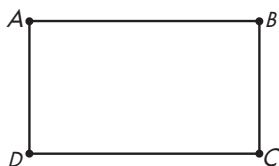
A **square** is a rectangle with 4 sides of same length and all angles equal.
$AB = BC = CD = DA$
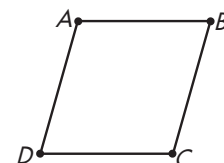$\angle ADC = \angle DCB$, $\angle CBA = \angle BAD = 90°$.

A **rectangle** is a parallelogram with four right angles. Opposite sides are equal. $\overline{AB} = \overline{DC}$, $\overline{AD} = \overline{BC}$, $\angle BAD = \angle ABC = \angle BCD = \angle CDA = 90°$.
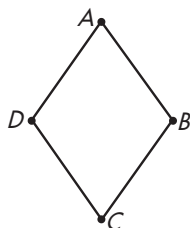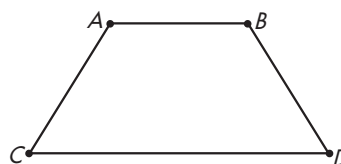
A **rhombus** is a parallelogram with all four sides the same length. Opposite angles are the same measure.

A **kite** has 2 pairs of adjacent sides that are congruent.

A **trapezoid** has just 2 sides that are parallel.
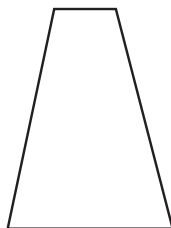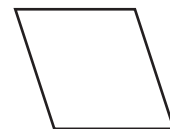

Identify each quadrilateral.

	a	**b**	**c**
1.	_____	_____	_____
2.	_____	_____	_____