

# Shapes & Designs 3.1

**No new vocabulary terms.**

# Shapes & Designs 3.2

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# Shapes & Designs 3.3

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# Shapes & Designs 3.4

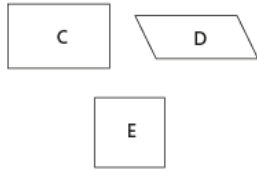
## parallel lines

Lines in a plane that never meet. The opposite sides of a regular hexagon are parallel.

Polygons A and B each have one pair of opposite sides parallel.



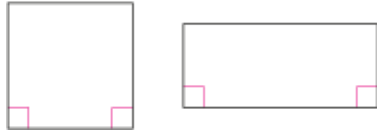
Polygons C, D, and E each have two pairs of opposite sides parallel.



## rectangle

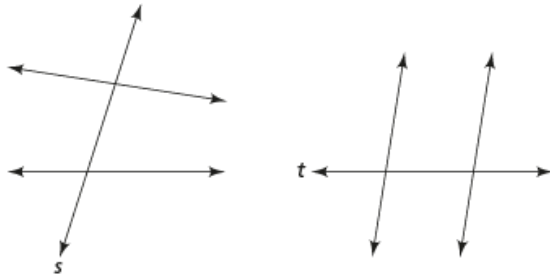
A parallelogram with all right angles. Squares are a special type of rectangle.

**Rectangles**



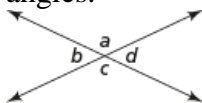
## transversal

A line that intersects two or more lines. Lines  $s$  and  $t$  are transversals.



## vertical angles

Vertical angles are a pair of congruent nonadjacent angles formed by the intersection of two lines. In the figure below, angles  $a$  and  $c$  are vertical angles, and angles  $b$  and  $d$  are vertical angles.



# Shapes & Designs 3.5

## reflectional symmetry

A figure or design has reflectional symmetry if you can draw a line that divides the figure into halves that are mirror images. The line that divides the figure into halves is called the *line of symmetry*. The design below has reflectional symmetry about a vertical line through its center. Reflectional symmetry is sometimes referred to as *mirror symmetry* or *line symmetry*.



## rotational symmetry

A figure or design has rotational symmetry if it can be rotated less than a full turn about a point to a position in which it looks the same as the original. The design below has rotational symmetry with its center as the center of rotation and a  $60^\circ$  angle of rotation. This means that it can be rotated  $60^\circ$ , or any multiple of  $60^\circ$ , about its center point to produce an image that matches exactly with the original.

