

Chapter 25: Define Two-Dimensional Shapes

Vocabulary

Dear Family,

During the next few weeks, our math class will be learning about plane shapes. We will learn about lines, rays, and angles. We will learn to define two dimensional shapes by describing their sides and angles.

- **Angle:** A shape formed by two rays that share an endpoint.
- **Right Angle:** An angle that forms a square corner.
- **Intersecting lines:** Lines that cross or meet and form angles.
- **Parallel lines:** Lines that never cross or meet and are always the same distance apart. They do not form angles.
- **Perpendicular lines:** Intersecting lines that cross or meet to form right angles.
- **Plane shape:** A shape on a flat surface formed by points that make curved paths, line segments, or both.

-
- Homework due date: **Sunday, April 19th**
 - Measurement Quiz on **Thursday, April 16th**
 - Please refer to this week's packet for definitions. Students are expected to understand and memorize the characteristics and definitions, as we will be working on them over the next two weeks. A test is scheduled for Wednesday, April 22nd
 - Feel free to contact me with any questions at diana.charaf@archimedean.org
-

Complete homework daily based on the schedule provided below:

Monday 04/13

IXL Lesson: **VPW**

Tuesday 04/14

IXL Lessons: **DFS - 2YR**

Wednesday 04/15

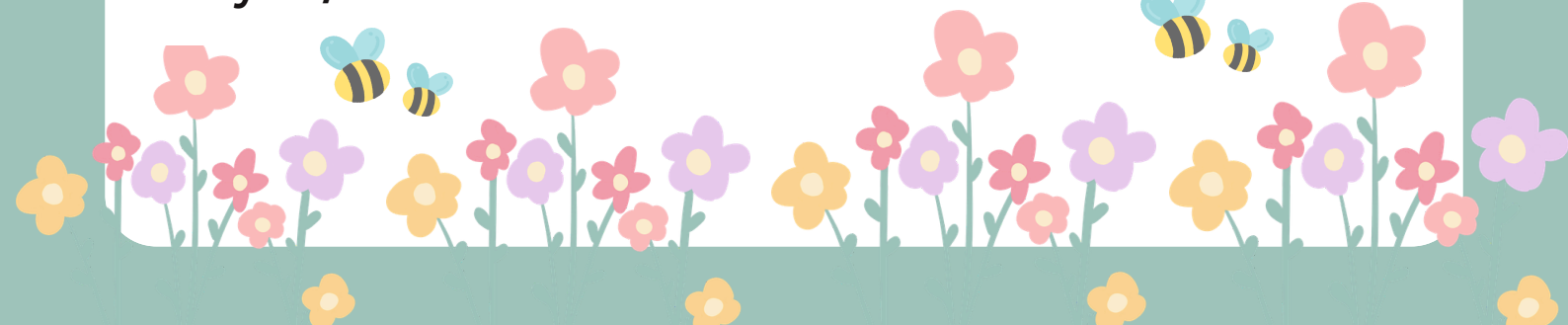
IXL Lessons: **9SX - 6E9**

Thursday 04/16

IXL Lessons: **V6L - GLZ**

Friday 04/17

IXL Lessons: **47T - ZSD**



Lines, line segments, and rays

Points, lines, line segments, and rays are the building blocks of geometry!

What is a point?

A **point** is an exact location or position.

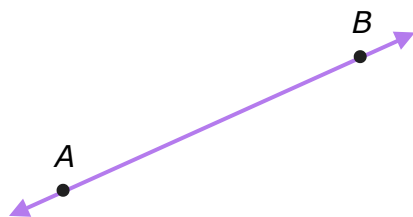
You can name a point using a letter. This point is named point A.



What is a line?

A **line** is a collection of points in a straight path that goes on forever in both directions.

You can name a line using two points on the line and a symbol with arrows pointing in both directions. This line is named \overleftrightarrow{AB} .



What is a line segment?

A **line segment** is part of a line. It has two endpoints.

You can name a line segment using its two endpoints and a symbol without arrows. This line segment is named \overline{AB} .



What is a ray?

A **ray** is part of a line. It has one endpoint and continues forever in the other direction.

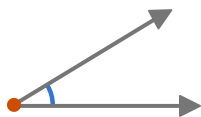
You can name a ray using its endpoint, one other point on the ray, and a symbol with an arrow pointing in one direction. This ray is named \overrightarrow{AB} .



Types of angles

What is an angle?

An **angle** is formed by two rays that share a common endpoint, or **vertex**.

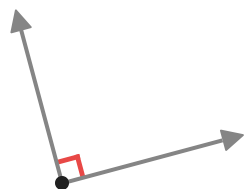


The size of the angle depends on how widely or narrowly the two rays are spread apart. The wider open an angle is, the greater its measure. Angles are measured in degrees.

Angles have special names based on their degree measures.

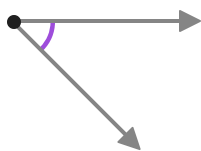
Right angles

A **right angle** measures exactly 90° . It is the same shape as the corner of a square.



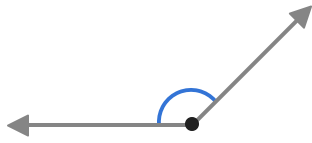
Acute angles

An **acute angle** measures between 0° and 90° . It is narrower than a right angle.



Obtuse angles

An **obtuse angle** measures between 90° and 180° . It is wider than a right angle.



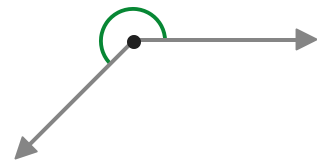
Straight angles

A **straight angle** measures exactly 180° . The rays form a line.



Reflex angles

A **reflex angle** measures between 180° and 360° . It is wider than a straight angle.



Full angles

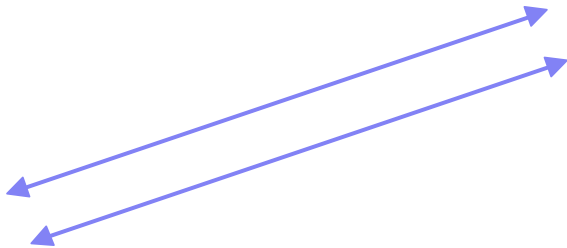
A **full angle** measures exactly 360° . It is one complete rotation.



Parallel and perpendicular lines

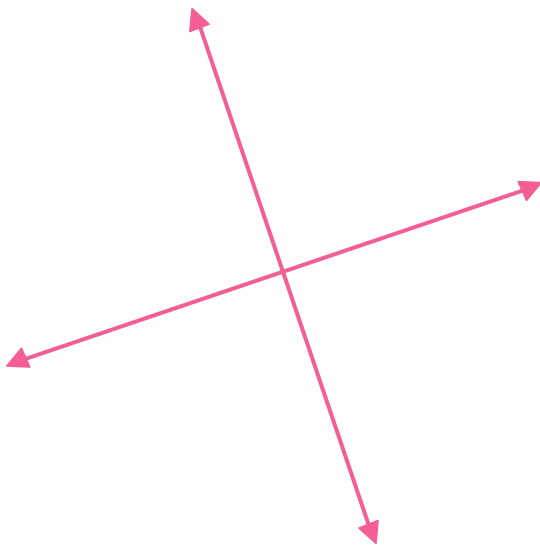
What are parallel lines?

Parallel lines are lines that always stay the same distance apart from each other. They will never meet.



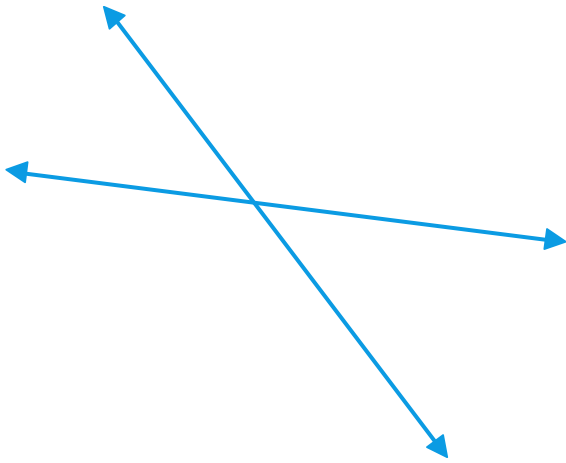
What are perpendicular lines?

Perpendicular lines are lines that meet at [right angles](#).



What are intersecting lines?

Intersecting lines are lines that meet or cross each other. They share a common point called the **point of intersection**.

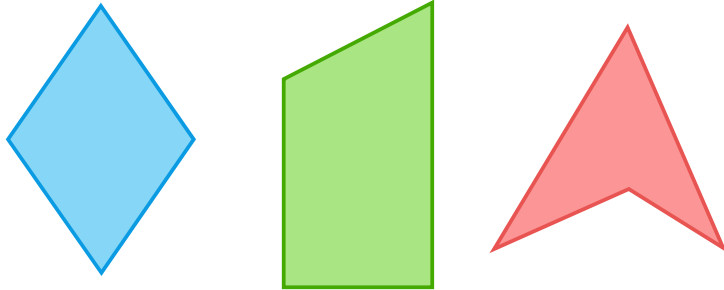


Perpendicular lines intersect each other at 90° angles.

Types of quadrilaterals

What is a quadrilateral?

A quadrilateral is a two-dimensional shape with four sides and four angles.



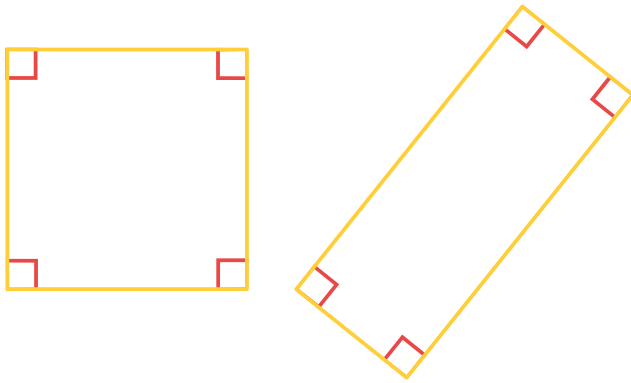
Some quadrilaterals have special names, such as trapezoid, parallelogram, rectangle, rhombus, and square. You can use the properties of quadrilaterals to name them. Let's find out how!

Classifying quadrilaterals

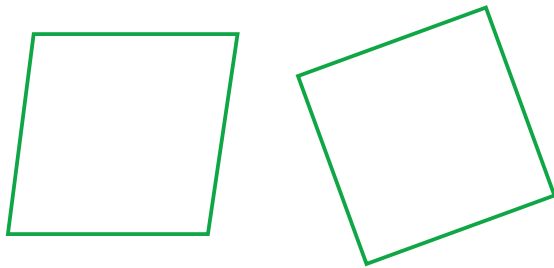
A **parallelogram** is a quadrilateral with two pairs of parallel sides.



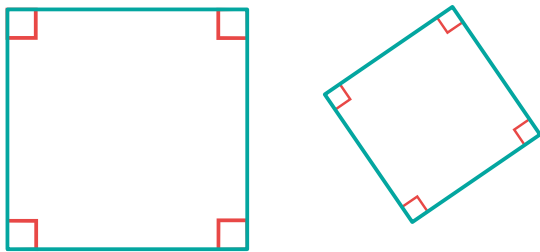
A **rectangle** is a parallelogram with four right angles.



A **rhombus** is a parallelogram with four equal sides.



A **square** is a parallelogram with four equal sides and four right angles.



A **trapezoid** is a quadrilateral with exactly one pair of parallel sides. In the United Kingdom, this shape is called a **trapezium**.

