Lines are fundamental elements in geometry, characterized by their length and direction. Here are some common types of lines:

#### Straight Line:

A line that extends indefinitely in both directions and does not curve.

#### Curved line:

A curved line is a type of line that does not follow a straight path



#### Ray:

A part of a line that has one endpoint and extends infinitely in one direction.



#### Line Segment:

A part of a line that has two endpoints.



#### Parallel Lines:

Lines in the same plane that do not intersect. They remain equidistant from each other at all points.

## Perpendicular Lines:

Lines that intersect at a right angle (90 degrees).

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## **Intersecting Lines:**

Lines that cross or meet at a common point.

#### Square

- All sides are equal in length.
- All angles are right angles (90 degrees).
- Opposite sides are parallel and equal in length.

# Rectangle:

- Opposite sides are equal in length.
- All angles are right angles (90 degrees).
- Opposite sides are parallel.



#### Circle:

- No straight sides; consists of a curved boundary.
- No angles.
- All points on the boundary are equidistant from the center.

# Parallelogram:

- Opposite sides are equal in length.
- Opposite angles are equal.
- Opposite sides are parallel.



#### Triangle:

- Three sides.
- Three angles.
- The sum of interior angles is always 180 degrees.



## **Trapezoid**

- At least one pair of parallel sides.
- No sides are equal in length (unless it's an isosceles trapezoid).

