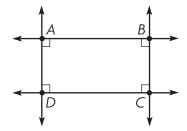
Parallel Lines and Perpendicular Lines

Parallel lines are lines in a plane that are always the same distance apart. Parallel lines or line segments never meet.

In the figure, lines AB and CD, even if extended, will never meet.

The lines are parallel. Write $\overrightarrow{AB} \parallel \overrightarrow{CD}$.

Lines AD and BC are also parallel. So, $\overrightarrow{AD} \overrightarrow{BC}$.



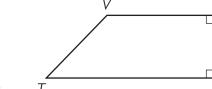
Intersecting lines cross at exactly one point. Intersecting lines that form right angles are **perpendicular**.

In the figure, lines AD and AB are perpendicular because they form right angles at vertex A. Write $\overrightarrow{AD} \perp \overrightarrow{AB}$.

Lines \underline{BC} and \underline{CD} are also perpendicular. So, $\overrightarrow{BC}\bot\overrightarrow{CD}$.

Use the figure for 1–3.

1. Name two sides that appear to be parallel.

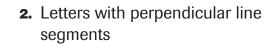


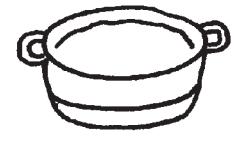
- 2. Name two sides that appear to be perpendicular.
- **3.** Name two sides that appear to be intersecting, but not perpendicular.

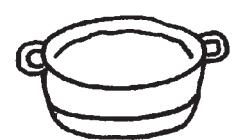
Alphabet Soup

Use all 26 capital letters of the alphabet. Place them into as many "soups" as possible.

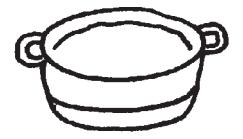
1. Letters with parallel line segments







3. Letters with intersecting, but not perpendicular, line segments



4. Letters with no parallel, perpendicular, or intersecting line segments

