Module 1 Vocab: Geometric Reasoning

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Quizlet: https://quizlet.com/join/qvPuvXwCC

Module 1: Geometric Reasoning

Learn
Points, Lines, and Planes

| Undefined Terms	
A **point** is a location. It has neither shape nor size. Named by a capital letter Example point *A*	
A **line** is made up of points and has no thickness or width. There is exactly one line through any two points. Named by the letters representing two points on the line or a lowercase script letter Example line *m*, line *PQ* or $\overleftrightarrow{PQ}$, line *QP* or $\overleftrightarrow{QP}$	

Learn
Points, Lines, and Planes

| Undefined Terms	
A **plane** is a flat surface made up of points that extends infinitely in all directions. There is exactly one plane through any three points not on the same line. Named by a capital script letter or by the letters naming three points that are not all on the same line Example plane $\mathcal{K}$, plane *BCD*, plane *CDB*, plane *DCB*, plane *DBC*, plane *CBD*, plane *BDC*	
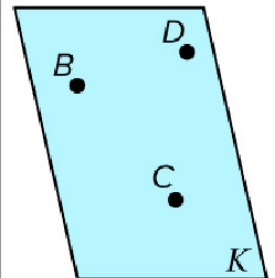
Learn
Points, Lines, and Planes

Space is defined as a boundless three-dimensional set of all points. Space can contain lines and planes. **Collinear** points are points that lie on the same line. *Noncollinear* points do not lie on the same line.

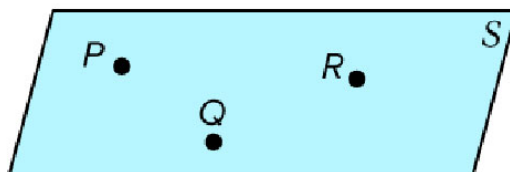Points *A*, *B*, and *C* are collinear.
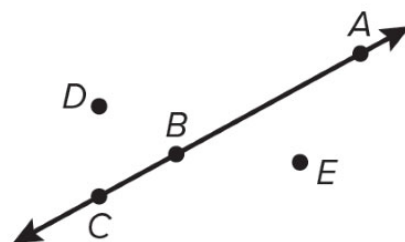
Learn
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Coplanar points are points that lie in the same plane. *Noncoplanar* points do not lie in the same plane.

Points *P*, *Q*, and *R* are coplanar in plane *S*.

Learn
Intersections of Lines and Planes

The **intersection** of two or more geometric figures is the set of points they have in common. Two lines intersect in a point. Lines can intersect planes, and planes can intersect each other.

Learn
Betweenness of Points

A **line segment** is a measurable part of a line that consists of two points, called endpoints, and all of the points between them. The two endpoints are used to name the segment.

For any two real numbers a and b, there is a real number n between a and b such that $a < n < b$. This relationship also applies to points on a line and is called **betweenness of points**.

Learn
Line Segment Congruence

If two geometric figures have exactly the same shape and size, then they are **congruent**. Two segments that have the same measure are **congruent segments**.

Learn
Midpoints on a Number Line

The **midpoint** of a segment is the point halfway between the endpoints of the segment. A point is **equidistant** from other points if it is the same distance from them. The midpoint separates the segment into two segments with a ratio of 1:1.

Key Concept: Midpoint on a Number Line

If $\overline{AB}$ has endpoints at x_1 and x_2 on a number line, then the midpoint M of $\overline{AB}$ has coordinate $M = \frac{x_1 + x_2}{2}$.