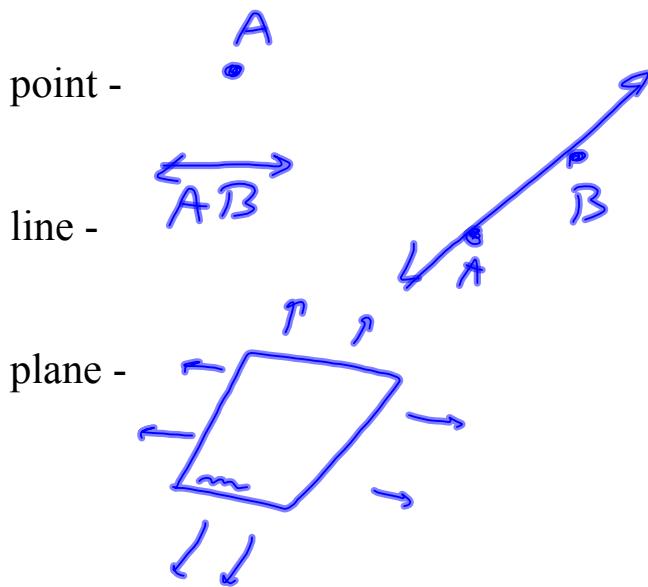


1-1 Points, lines, and planes



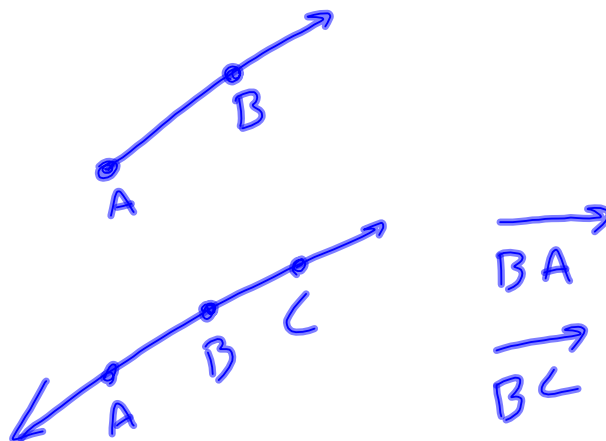
collinear - on the same line

coplanar - on the same plane

segment - \overline{AB}

ray - \overrightarrow{AB}

opposite rays -



What do each of these mean?

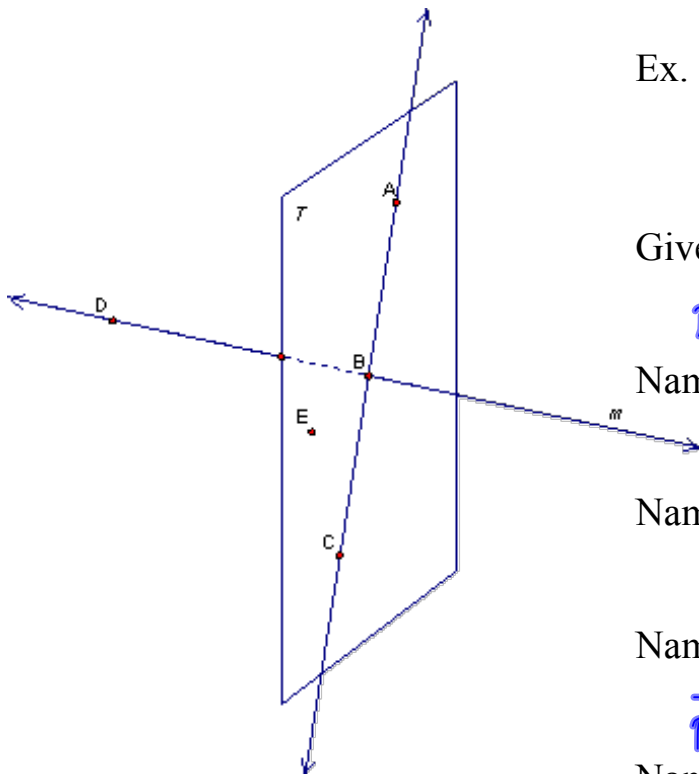
\overline{AB} Segment AB

\longleftrightarrow_{AB} line AB

\overrightarrow{AB} ray AB

\overrightarrow{BA} ray BA

AB distance from A to B



Ex. 1 Give two other names for line BD

line m \longleftrightarrow_{DB}

Give another name for plane T

plane ABE

Name three collinear points

A, B, C

Name four coplanar points

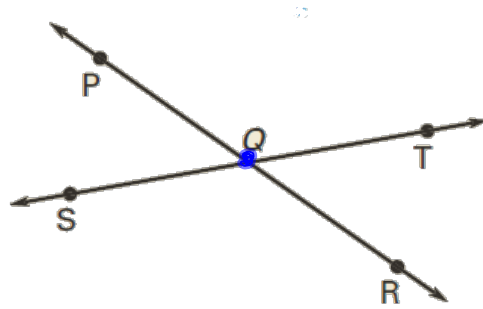
A, B, C, E

Name all rays with endpoint B

\overrightarrow{BA} \overrightarrow{BC} \overrightarrow{BD}

Name two opposite rays

\overrightarrow{BA} \overrightarrow{BC}



Ex. 2 a. Give another name for \overline{PR}

\overline{RP}

b. Name all rays with endpoint Q.

\overrightarrow{QP}

\overrightarrow{QT}

\overrightarrow{QS}

\overrightarrow{QR}

Which of these are opposite rays?

\overrightarrow{QR} and \overrightarrow{QP}

\overrightarrow{QS} and \overrightarrow{QT}

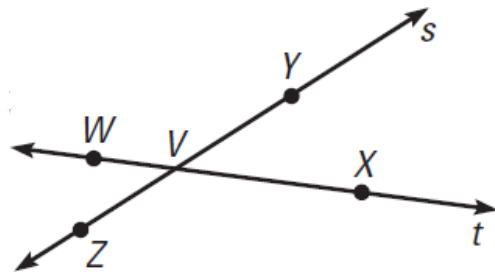
Ex. 3 Sketch a plane and two intersecting lines that intersect the plane at different points.

Sketch a plane and two intersecting lines that do not intersect the plane.

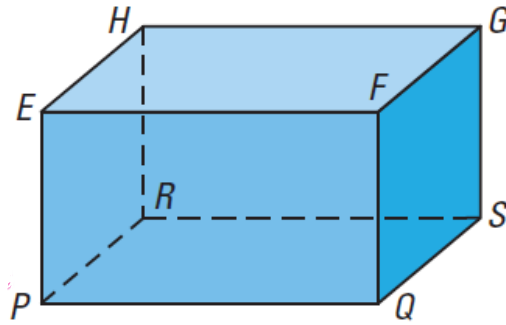
Sketch a plane and two intersecting lines that lie in a plane.

Sketch two planes that do not intersect.

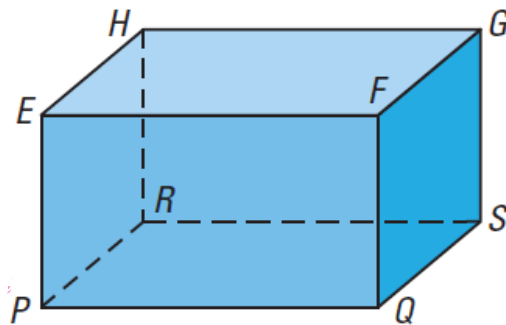
Ex. 4 Sketch plane J intersecting plane K . Then draw a line l on plane J that intersects plane K at a single point.



- Ex. 5
- What is another name for \overline{ZY} ?
 - Name all rays with endpoint V .
 - Name two pairs of opposite rays.
 - Give another name for \overrightarrow{WV} .



- Ex. 6
- Name the intersection of \overleftrightarrow{PR} and \overleftrightarrow{HR} .
 - Name the intersection of plane EFG and plane FGS .
 - Name the intersection of plane PQS and plane HGS .



- Ex. 6
- Are points P , Q , and F collinear?
 - Are points P , Q , and F coplanar?
 - Are points P and G collinear?

Which question(s) in example 6 could be answered without using the diagram? Why?

Ex. 7 Draw three noncollinear points J , K , and L .

Sketch \overline{JK} and add a point M on \overline{JK} . Then sketch \overrightarrow{ML} .