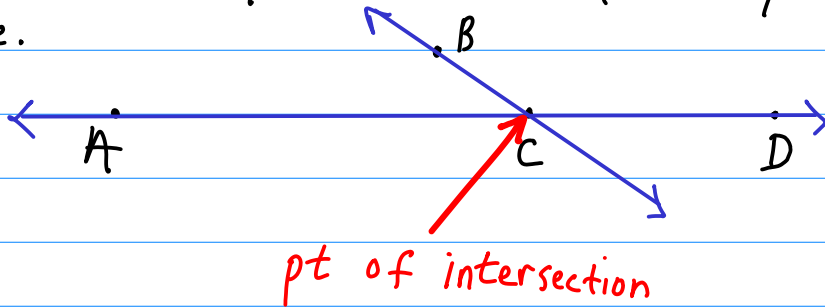


# §1.1: Collinear and Coplanar

\* Collinear: describes pts that are (or may be) on the same line.

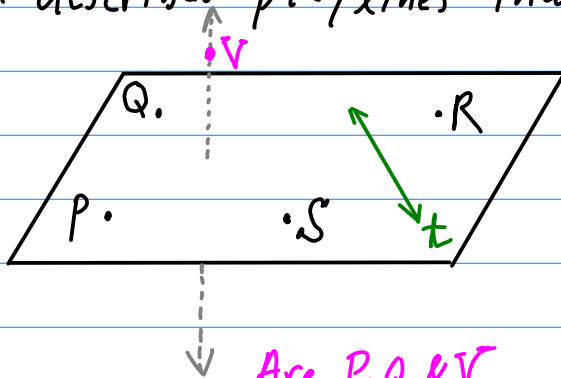


collinear pts	
A, B	D, A
B, C	A, C, D
B, D	
<del>B, C, D</del>	

• Collinear pts (3 or more) on wkshet:

- E, A, F ✓      C, E, M ✓      M, H, Q ✓      ~~M, G, L~~      C, A, B ✓
- E, D, L ✓      C, Q, L ✓      ~~Q, E, L~~      ~~B, A, L~~      G, F, B ✓

\* Coplanar: describes pts/lines that may be on the same plane.



• P, Q, R, & S are on the same plane, making them coplanar.  
 $\leftarrow$  t is coplanar w/ P, Q, R, & S.

Are P, Q, & V coplanar? Yes!

Facts:

- \* Every pair of pts. is collinear.
- \* Every set of 3 pts is coplanar.



Ex: Midpt:

$P(-3, 4)$ ;  $Q$  @ origin;  $R$  has same  $x$ -coordinate & opposite  $y$ -coord. as  $P$   $(-3, -4)$

- a) connect  $P, Q,$  &  $R$  to form  $\triangle PQR$
- b)  $M$  is midpt of  $\overline{PQ}$
- c)  $N$  " "  $\overline{QR}$
- d) Draw  $\overline{MN}$

