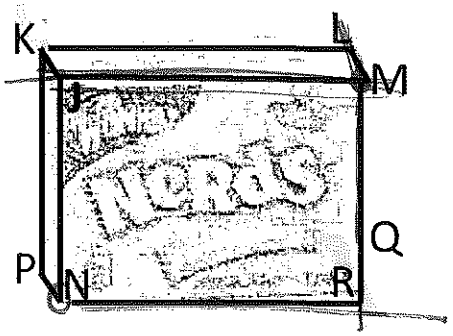
Learning Target(s): I am able to identify parallel and skew lines, and parallel planes.
I am able to identify angle pairs formed by three intersecting lines.

Notes: 3.1 Identify Pairs of Lines and Angles

NERDS:



Label each point (corner) as shown in the diagram.

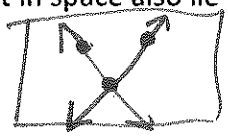
1. Will $\overleftrightarrow{JM}$ and $\overleftrightarrow{LQ}$ ever intersect in space? What kind of lines are they?

   No - skew

2. Will the pair of lines intersect in space?
   a. $\overleftrightarrow{JK}$ and $\overleftrightarrow{NR}$ No
   b. $\overleftrightarrow{LM}$ and $\overleftrightarrow{MR}$ Yes
   c. $\overleftrightarrow{QR}$ and $\overleftrightarrow{MR}$ Yes
   d. $\overleftrightarrow{KL}$ and $\overleftrightarrow{NQ}$ NO

3. Does the pair of lines lie in one plane?
   a. $\overleftrightarrow{JK}$ and $\overleftrightarrow{QR}$ Yes
   b. $\overleftrightarrow{QR}$ and $\overleftrightarrow{MR}$ Yes
   c. $\overleftrightarrow{JN}$ and $\overleftrightarrow{LR}$ NO
   d. $\overleftrightarrow{JL}$ and $\overleftrightarrow{NQ}$ Yes

4. Do pairs of lines that intersect in space also lie in the same plane? Explain your reasoning.



3 points make a plane Yes!

5. Which line(s) or plane(s) in the figure appear to fit the description?
   a. Line(s) parallel to $\overleftrightarrow{JM}$ and and contain the point N $\overleftrightarrow{NR}$
   b. Line(s) skew to $\overleftrightarrow{JM}$ and containing point N $\overleftrightarrow{NP}$
   c. Line(s) perpendicular to $\overleftrightarrow{JM}$ and containing point N $\overleftrightarrow{NJ}$
   d. Plane(s) parallel to plane LMQ and containing point N plane KJN

Parallel Postulate

If there is a **line** and a **point** not on the line,

then there is exactly **one line** through the point

_____ to the given line.

There is exactly **one line** through _____

_____ to _____.