Points Lines and Planes Assignment

Use the figure to name each of the following.

1. 

2. 

3. 

Draw and label figure for each relationship.

4. Ray $\overline{TR}$ and ray $\overline{TE}$

5. Line $\overline{DR}$

6. Line segment $\overline{SU}$

7. Draw two points, $G$ and $P$. Then sketch $\overline{GP}$. Add a point $T$ on the ray so that $T$ is between $G$ and $P$.

8. Line $\overline{RL}$ lies in plane $\pi$ and contains point $E$, but does not contain point $S$.

9. Line segment $\overline{SC}$ lies in plane $\pi$, and his end points are initial points of the ray $\overline{ST}$ and the ray $\overline{GO}$.

Refer to each figure.

10. Name three line segments.

   Name the intersection of plane $\pi$ and line $\overline{KY}$.

   Name the two opposite rays at point $H$.

   Name the intersection of line $\overline{BN}$ and line $\overline{QZ}$. 

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Points Lines and Planes Assignment

11. Name three collinear point in plane \( \varepsilon \).

   Name the intersection of plane \( \varepsilon \) and line \( \overline{EN} \).

   Name the intersection of plane \( \pi \) and line \( \overline{EN} \).

   Name the intersection of line \( \overline{BW} \) and line \( \overline{EN} \).

12. Name three planes.

   Name a point that is coplanar with \( M \) and \( F \)

   Name the intersection of plane \( \pi \) and plane \( FDM \).

   Name the intersection of plane \( MKJ \) and plane \( FDJ \).

Draw and label figure for each relationship.

13. Lines \( \overline{BJ} \) and \( \overline{PK} \) intersect in point \( G \) in plane \( \pi \).
   The intersection of plane \( \pi \) and line \( \overline{DM} \) is point \( M \).

14. The intersection of plane \( \pi \) and plane \( \tau \) is line \( \overline{DR} \).
Points Lines and Planes Assignment

15. Plane $\varepsilon$ and plane $\pi$ do not intersect.
   Plane $\tau$ intersect plane $\pi$ in line $\overline{NY}$.
   Plane $\tau$ intersect plane $\varepsilon$ in line $\overline{JM}$. 
Points Lines and Planes Assignment

ANSWERS

Use the figure to name each of the following.

1. Line $AB$
2. Line segment $KN$
3. Ray $OT$

Draw and label figure for each relationship.

4. Ray $TR$ and ray $TE$
5. Line $DR$
6. Line segment $SU$

7. Draw two points, $G$ and $P$. Then sketch $GP$. Add a point $T$ on the ray so that $T$ is between $G$ and $P$.

8. Line $RL$ lies in plane $\pi$ and contains point $E$, but does not contain point $S$

9. Line segment $SG$ lies in plane $\pi$, and his end points are initial points of the ray $ST$ and the ray $GO$

Refer to each figure.

10. Name three line segments. $HQ, BN, KY$

Name the intersection of plane $\pi$ and line $KY$

Name the two opposite rays at point $H$. $HB$ and $HN$

Name the intersection of line $BN$ and line $QZ$. $Point H$
Points Lines and Planes Assignment

11. Name three collinear point in plane \( \varepsilon \).
   \( B, H \) and \( W \)

Name the intersection of plane \( \varepsilon \) and line \( \overline{EN} \).
Point \( H \)

Name the intersection of plane \( \pi \) and line \( \overline{EN} \).
Point \( O \)

Name the intersection of line \( \overline{BW} \) and line \( \overline{EN} \).
Point \( H \)

12. Name three planes.
   \( FRD, MKJ, ELR \)

Name a point that is coplanar with \( M \) and \( F \).
Point \( D \)

Name the intersection of plane \( \pi \) and plane \( FDM \).
Line \( LM \).

Name the intersection of plane \( MKJ \) and plane \( FDJ \).
Line \( DJ \).

Draw and label figure for each relationship.

13. Lines \( \overline{BJ} \) and \( \overline{PK} \) intersect in point \( G \) in plane \( \pi \).
The intersection of plane \( \pi \) and line \( \overline{DM} \) is point \( M \).

14. The intersection of plane \( \pi \) and plane \( \tau \) is line \( \overline{DR} \).
Points Lines and Planes Assignment

15. Plane \( \varepsilon \) and plane \( \pi \) do not intersect.
    Plane \( \tau \) intersect plane \( \pi \) in line \( \overline{NY} \).
    Plane \( \tau \) intersect plane \( \varepsilon \) in line \( \overline{JM} \).