$\qquad$ Period: $\qquad$ Date: $\qquad$

## 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 $\overrightarrow{\boldsymbol{T R}}$ and ray $\overrightarrow{\boldsymbol{T E}}$
5. Line $\overleftrightarrow{\boldsymbol{D R}}$
6. Line segment $\overline{\boldsymbol{S U}}$
7. Draw two points, $\boldsymbol{G}$ and $\boldsymbol{P}$. Then sketch $\overrightarrow{\boldsymbol{G P}}$. Add a point $\boldsymbol{T}$ on the ray so that $\boldsymbol{T}$ is between $\boldsymbol{G}$ and $\boldsymbol{P}$.
8. Line $\overleftrightarrow{\boldsymbol{R} \boldsymbol{L}}$ lies in plane $\boldsymbol{\pi}$ and contains point $\boldsymbol{E}$, but does not contain point $\boldsymbol{S}$
9. Line segment $\overline{\boldsymbol{S G}}$ lies in plane $\boldsymbol{\pi}$, and his end points are initial points of the ray $\overrightarrow{\boldsymbol{S T}}$ and the ray $\overrightarrow{\boldsymbol{G O}}$

Refer to each figure.
10.


Name three line segments.

Name the intersection of plane $\boldsymbol{\pi}$ and line $\overleftrightarrow{\boldsymbol{K} \boldsymbol{Y}}$.

Name the two opposite rays at point $\boldsymbol{H}$.

Name the intersection of line $\overleftrightarrow{\boldsymbol{B N}}$. and line $\overleftrightarrow{\boldsymbol{Q Z}}$
$\qquad$
$\qquad$

## Points Lines and Planes Assignment


12.


Name three collinear point in plane $\boldsymbol{\varepsilon}$.

Name the intersection of plane $\boldsymbol{\varepsilon}$ and line $\overleftrightarrow{\boldsymbol{E N}}$.

Name the intersection of plane $\boldsymbol{\pi}$ and line $\overleftrightarrow{\boldsymbol{E N}}$.

Name the intersection of line $\overleftrightarrow{\boldsymbol{B} \boldsymbol{W}}$.and line $\overleftrightarrow{\boldsymbol{E N}}$

Name three planes.

Name a point that is coplanar with $\boldsymbol{M}$ and $\boldsymbol{F}$

Name the intersection of plane $\boldsymbol{\pi}$ and plane $\boldsymbol{F D} \boldsymbol{M}$.

Name the intersection of plane $\boldsymbol{M} \boldsymbol{K} \boldsymbol{J}$ and plane $\boldsymbol{F D} \boldsymbol{J}$.

Draw and label figure for each relationship.
13. Lines $\overleftrightarrow{\boldsymbol{B J}}$ and $\overleftrightarrow{\boldsymbol{P K}}$ intersect in point $\boldsymbol{G}$ in plane $\boldsymbol{\pi}$.

The intersection of plane $\boldsymbol{\pi}$ and line $\overleftrightarrow{\boldsymbol{D M}}$ is point
M.
14. The intersection of plane $\boldsymbol{\pi}$ and plane $\boldsymbol{\tau}$ is line $\overleftrightarrow{\boldsymbol{D R}}$.
$\qquad$ Date: $\qquad$

## Points Lines and Planes Assignment

15. Plane $\boldsymbol{\varepsilon}$ and plane $\boldsymbol{\pi}$ do not has intersect.

Plane $\boldsymbol{\tau}$ intersect plane $\boldsymbol{\pi}$ in line $\overleftrightarrow{N Y}$.
Plane $\boldsymbol{\tau}$ intersect plane $\boldsymbol{\varepsilon}$ in line $\overleftrightarrow{\boldsymbol{J M}}$.
$\qquad$
$\qquad$ Date: $\qquad$

## Points Lines and Planes Assignment

## ANSWERS

Use the figure to name each of the following.
1.


Line $\overleftrightarrow{\boldsymbol{A B}}$
2.


Line segment $\overline{K N}$
3.


Ray $\overrightarrow{\boldsymbol{O T}}$

Draw and label figure for each relationship.
4. Ray $\overrightarrow{\boldsymbol{T R}}$ and ray $\overrightarrow{\boldsymbol{T E}}$

7. Draw two points, $\boldsymbol{G}$ and $\boldsymbol{P}$. Then sketch $\overrightarrow{\boldsymbol{G P}}$. Add a point $\boldsymbol{T}$ on the ray so that $\boldsymbol{T}$ is between $\boldsymbol{G}$ and $\boldsymbol{P}$.
5. Line $\overleftrightarrow{\boldsymbol{D R}}$

8. Line $\overleftrightarrow{\boldsymbol{R} \boldsymbol{L}}$ lies in plane $\boldsymbol{\pi}$ and contains point $\boldsymbol{E}$, but does not contain point $\boldsymbol{S}$
6. Line segment $\overline{\boldsymbol{S} \boldsymbol{U}}$

9. Line segment $\overline{\boldsymbol{S G}}$ lies in plane $\boldsymbol{\pi}$, and his end points are initial points of the ray $\overrightarrow{\boldsymbol{S T}}$ and the ray $\overrightarrow{G O}$


## Refer to each figure.

10. 



Name three line segments.
$\overline{H Q}, \overline{B N}, \overline{K Y}$

Name the intersection of plane $\boldsymbol{\pi}$ and line $\overleftrightarrow{\boldsymbol{K} \boldsymbol{Y}}$.

Name the two opposite rays at point $\boldsymbol{H}$.

Name the intersection of line $\overleftrightarrow{\boldsymbol{B N}}$. and line $\overleftrightarrow{\boldsymbol{Q Z}}$

Point $\boldsymbol{W}$

$\overrightarrow{\boldsymbol{H B}}$ and $\overrightarrow{\boldsymbol{H} \boldsymbol{N}}$

Point $\boldsymbol{H}$
$\qquad$
$\qquad$

## Points Lines and Planes Assignment

11. 


12.


Name three collinear point in plane $\boldsymbol{\varepsilon} . \quad \boldsymbol{B}, \boldsymbol{H}$ and $\boldsymbol{W}$

Name the intersection of plane $\boldsymbol{\varepsilon}$ and line $\overleftrightarrow{\boldsymbol{E N}}$.

Name the intersection of plane $\boldsymbol{\pi}$ and line $\overleftrightarrow{\boldsymbol{E N}}$.

Name the intersection of line $\overleftrightarrow{\boldsymbol{B} \boldsymbol{W}}$. and line $\overleftrightarrow{E N}$

Name three planes.

Name a point that is coplanar with $\boldsymbol{M}$ and $\boldsymbol{F}$

Name the intersection of plane $\boldsymbol{\pi}$ and plane $\boldsymbol{F D} \boldsymbol{M}$.

Name the intersection of plane $\boldsymbol{M} \boldsymbol{K} \boldsymbol{J}$ and plane $\boldsymbol{F D} \boldsymbol{J}$.

Point $\boldsymbol{H}$

Point $\boldsymbol{O}$

Point $\boldsymbol{H}$

FRD, MKJ, ELR

Point D

Line $\overleftrightarrow{\boldsymbol{L M}}$

Line $\overleftrightarrow{\mathbf{D J}}$

Draw and label figure for each relationship.
13. Lines $\overleftrightarrow{\boldsymbol{B J}}$ and $\overleftrightarrow{\boldsymbol{P K}}$ intersect in point $\boldsymbol{G}$ in plane $\boldsymbol{\pi}$. The intersection of plane $\boldsymbol{\pi}$ and line $\overleftrightarrow{\boldsymbol{D M}}$ is point M.

14. The intersection of plane $\boldsymbol{\pi}$ and plane $\boldsymbol{\tau}$ is line $\overleftrightarrow{\boldsymbol{D R}}$.

$\qquad$ Date: $\qquad$

## Points Lines and Planes Assignment

15. Plane $\boldsymbol{\varepsilon}$ and plane $\boldsymbol{\pi}$ do not has intersect.

Plane $\boldsymbol{\tau}$ intersect plane $\boldsymbol{\pi}$ in line $\overleftrightarrow{N Y}$.
Plane $\boldsymbol{\tau}$ intersect plane $\boldsymbol{\varepsilon}$ in line $\overleftrightarrow{\boldsymbol{J M}}$.


