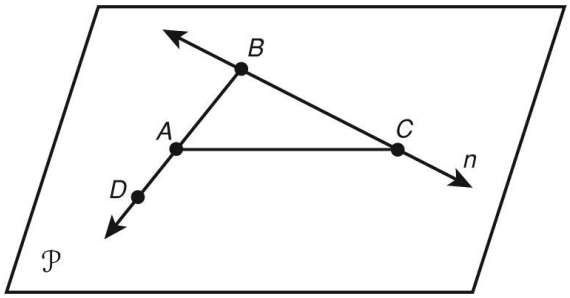
Basics of Geometry III

Use the picture for 1-4.



1. Name a line. _____

2. Name a segment on line *n*. _____

3. Name a ray with endpoint *A*. _____

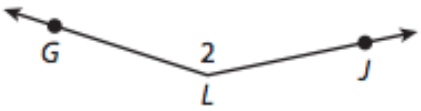
4. Name the plane. _____

Sketch each figure for 5-6.

5. two rays that form a straight line and that intersect at point P.

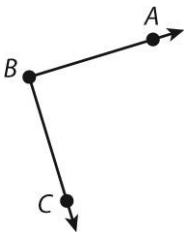
6. two line segments that both have a midpoint at point M.

7. Name the angle in as many ways as possible.



Determine the measure of each angle. Then describe each angle as acute, right, obtuse, or straight.

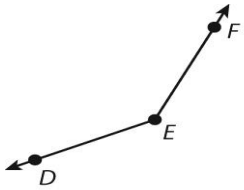
8.



m∠*ABC* = _____

_____

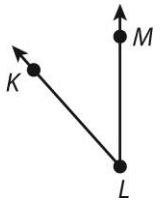
9.



m∠*DEF* = _____

_____

10.



m∠*KLM* = _____

_____

11. S is the midpoint of $\overline{RT}$, $RS = 2x + 4$, and $RT = 8x$. Find ST.

12. R, S, and T are collinear, and S is between R and T. If $RS = x + 1$, $ST = 2x - 2$, and $RT = 5x - 5$, find RT.

13. $\overrightarrow{XZ}$ bisects $\angle WXY$, and $m\angle WXZ = 90°$. Find $m\angle WXY$.

14. $m\angle PQR$ if $\overrightarrow{QT}$ bisects $\angle PQR$, $m\angle RQT = (10x - 13)°$, and $m\angle PQT = (6x + 1)°$.

15.

Determine whether each of the following pairs of angles have equal measures. Select the correct answer for each lettered part.

A. $\angle KJL$ and $\angle LJM$	◯ Yes	◯ No
B. $\angle MJP$ and $\angle PJR$	◯ Yes	◯ No
C. $\angle LJP$ and $\angle NJR$	◯ Yes	◯ No
D. $\angle MJK$ and $\angle PJR$	◯ Yes	◯ No
E. $\angle KJR$ and $\angle MJP$	◯ Yes	◯ No