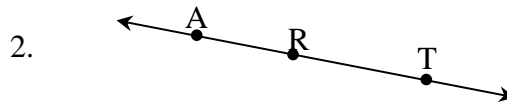
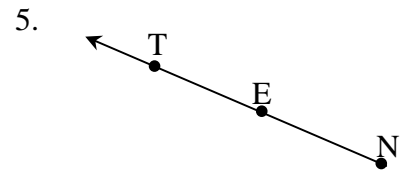
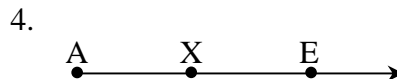
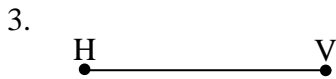


2.1 – Building Blocks of Geometry

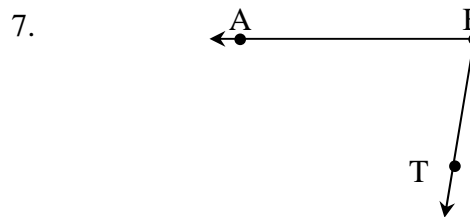
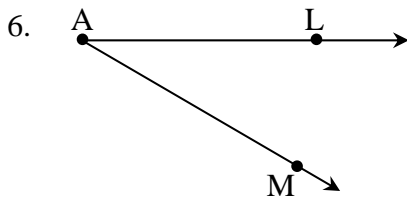
Name each line two different ways.



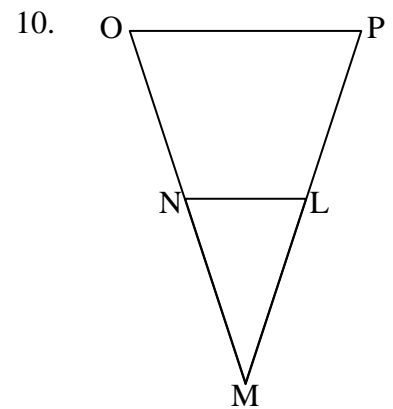
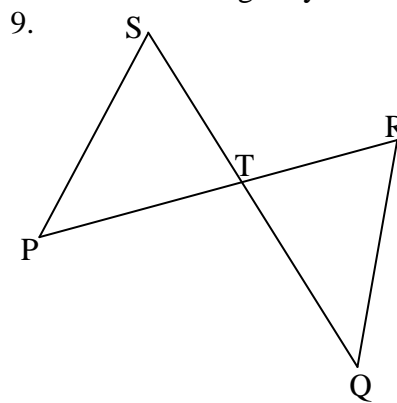
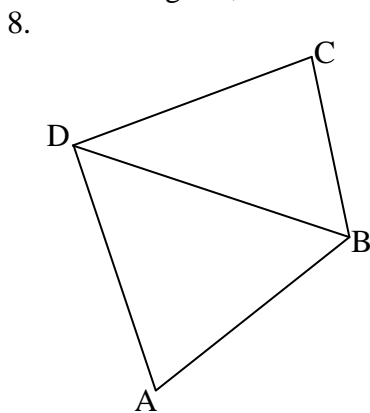
Name each line segment or ray two different ways.



Name each angle three different ways.

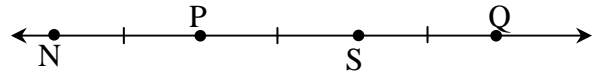


For each diagram, list the angles that can be named using only one vertex.



11. Draw a figure that contains at least three angles and requires three letters to name each angle.

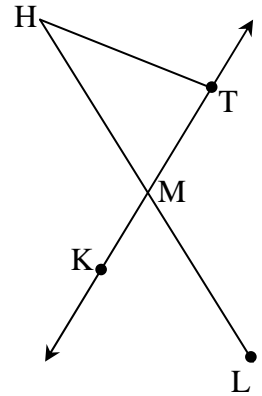
For #12-18, complete each statement, $PS = 3$ cm.



12. The midpoint of \overline{PS} is _____.
13. $NQ =$ _____.
14. Another name for \overline{NS} is _____.
15. S is the _____ of \overline{SQ} .
16. P is the midpoint of _____.
17. $\overline{NS} \cong$ _____.
18. Another name for \overline{SN} is _____.

In the diagram, \overline{HL} and \overline{KT} intersect at the midpoint of \overline{HL} . Classify each statement as true or false.

19. $\overline{LM} \cong \overline{MH}$.
20. \overline{MT} bisects \overline{LH} .
21. \overline{MT} and \overline{TM} are opposite rays.
22. \overline{LH} is the same as \overline{HL} .
23. \overline{KT} is the same as \overline{KM} .
24. $HM + ML = HL$
25. T is between H and M .
26. KM must equal MT .
27. \overline{KT} is a bisector of \overline{LH} .
28. \overline{MT} and \overline{MK} are opposite rays.
29. \overline{KT} is the same as \overline{KM}
30. \overline{KT} is the same as \overline{KM}
31. $TM + MH = TH$
32. M is between K and T .

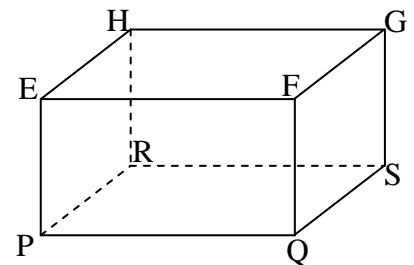


In #33-35, draw \overline{CD} and \overline{RS} so that the conditions are met.

<p>33. \overline{CD} and \overline{RS} intersect, but neither segment bisects the other.</p>	<p>34. \overline{CD} and \overline{RS} bisect each other.</p>	<p>35. \overline{CD} bisects \overline{RS}, but \overline{RS} does not bisect \overline{CD}.</p>
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In #36-41, use the diagram at the right.

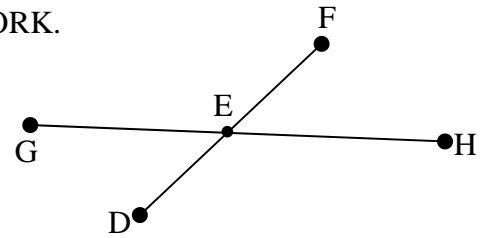
36. Name the intersection of \overline{PR} and \overline{HR} . _____
37. Name the intersection of plane EFG and plane FGS . _____
38. Name the intersection of plane PQS and plane HGS . _____
39. Are points P, Q, and F collinear? coplanar? _____
40. Are points P and G collinear? coplanar? _____
41. Name the three planes that intersect at point E.



For #42-47, E is the midpoint of \overline{DF} . Find the value of x . SHOW ALL WORK.

42. $DE = 5x + 3$, $EF = 33$

43. $DE = 45$, $EF = 5x - 10$



44. $DE = 3x$, $EF = x + 6$

45. $DE = 2x - 3$, $EF = 5x - 24$

46. $GE = x$, $EH = x - 1$, $GH = 11$

47. $GH = x + 6$, $EH = 2x - 4$, $GE = x$

48. P, Q, R, S, and T are on line k such that Q is the midpoint \overline{PT} , R is the midpoint of \overline{QT} , and S is the midpoint of \overline{RT} . If $PS = 9$, then what is PT ?

49. Points A, B, C, D, and E are five points on a line segment with endpoints A and E. The points are in the order listed above from left to right such that $CD = AB/2$, $BC = CD/2$, $AB = AE/2$ and $AE = 12$. What is the length \overline{AD} ?