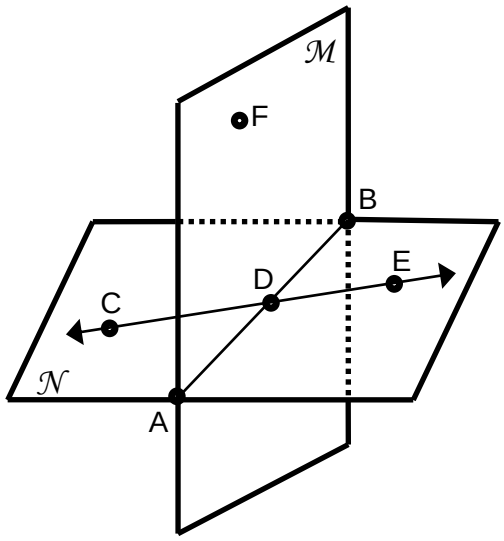
NAME_____DATE_____PER_____

UNIT 1 REVIEW: FOUNDATIONS OF GEOMETRY

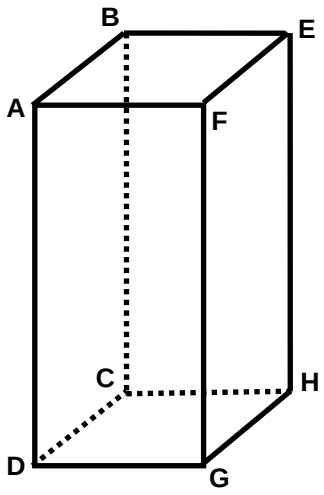
Match the name with its definition. Place letter in first blank. Then use the picture below to give a correct example (with symbols and letters) of that figure in second blank.

1. Point:_____ Ex._____	A. Points that lie on the same line.
2. Line:_____ Ex:_____	B. Part of a line consisting of one endpoint and extending infinitely in one direction.
3. Line Segment:_____ Ex:_____	C. Rays that share a common endpoint, but continue infinitely in opposite directions.
4. Ray:_____ Ex:_____	D. A flat surface that continues infinitely in all directions.
5. Opposite Rays:_____ Ex:_____	E. Points that lie on the same plane.
6. Plane:_____ Ex:_____	F. An exact location in space with an indefinite shape and size.
7. Collinear:_____ Ex:_____	G. Part of a line consisting of two endpoints and all the points in between.
8. Non-Collinear:_____ Ex:_____	H. An object with no thickness that extends infinitely in two directions.
9. Coplanar:_____ Ex:_____	I. Points that do not lie on the same plane.
10. Non-Coplanar:_____ Ex:_____	J. Points that do not lie on the same line.



Using the figure below, name each of the following:

11. The intersection of BAF and GHE:_____
12. The intersection of CDA and $\overrightarrow{HC}$:_____
13. A point collinear with G:_____



Using the figure above, tell whether each statement is TRUE or FALSE.

_____	14. A and B are collinear.
_____	15. C, A, D, & F are coplanar.
_____	16. EFG and ABE intersect at E.

SEGMENT LENGTH - NUMBER LINE

The numbers given are the coordinates of two points on a number line. Find the distance between the two points.

17. d = _____	-3 and 5
18. d = _____	-11 and -27

SEGMENT ADDITION

Given that B is between A and C, find the indicated length.

19. BC = _____	AB = 5.3 and AC = 6.7. Find BC.

If B is between A and C, find the value of 'x' and BC.

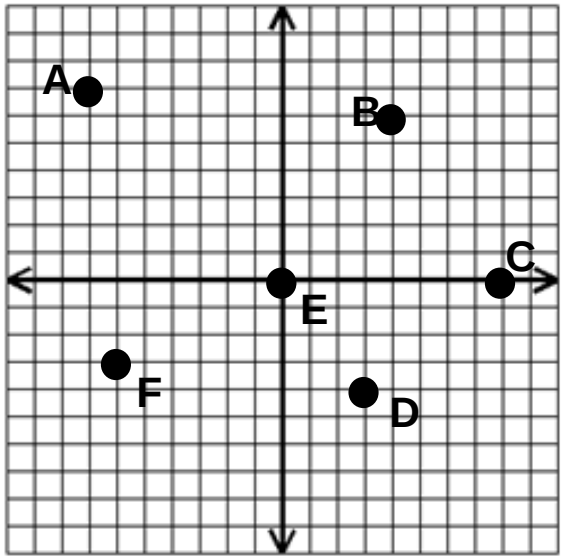
20. x = _____ BC = _____	AB = 3x, BC = 5x, and AC = 8.
21. x = _____ BC = _____	AB = 3(x + 7), BC = 2(x – 3), and AC = 50.

COORDINATE PLANE _ DISTANCE FORMULA
Find the length of the segment formed by connecting the points with the given coordinates. Round answers to the nearest tenth.

22. AB = _____	A(3, 1) and B(2, 4)
23. CD = _____	C(-1, 4) and D(-3, -4)

Find the length of each segment indicated below.

24. CE = _____
25. FD = _____



SEGMENT MIDPOINT – NUMBER LINE
The numbers given are the coordinates of two points on a number line. Find the midpoint of the segment joining the two points.

26. midpoint:_____	-2 and 6
27. midpoint:_____	4 and 12

COORDINATE PLANE – SEGMENT MIDPOINT FORMULA
Find the midpoint the segment formed by connecting each pair of coordinates.

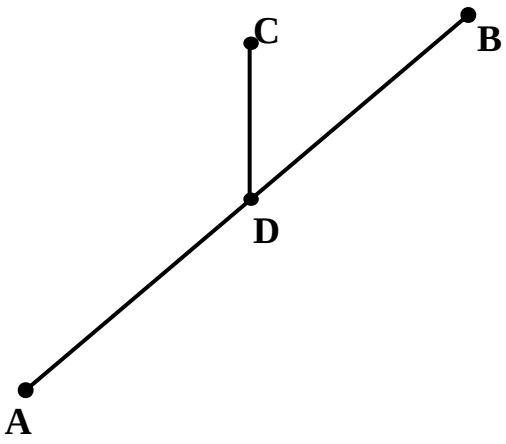
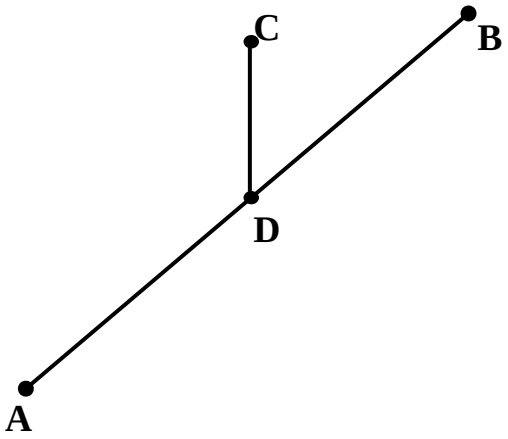
28. midpoint:_____	A(0, 0) and B(2, 5)
29 midpoint:_____	C(-3, 3) and D(-8, -5)

Given that B is the midpoint of $\overline{AC}$, find the coordinates of the endpoint indicated.

30. C(_____, _____)	A(-5, 1) and B(-2, 0)

SEGMENTS AND BISECTORS
In the figure below, $\overline{CD}$ bisects $\overline{AB}$ at D. For each of the following, find the value of 'x' and the measure of the segment indicated.

31. x = _____ AB = _____	AD = 2x + 11 DB = 4x – 5



32. x = _____ AD = _____	AB = 5x – 4 DB = x + 1