Name: _____ **Class:** _____ **Date:** _____ **ID: A**

7.1-7.4 Review

1. Which angle is an obtuse angle?

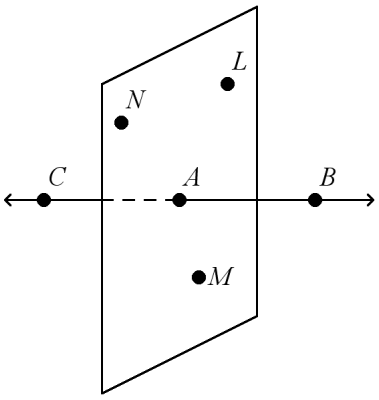
A.

B.

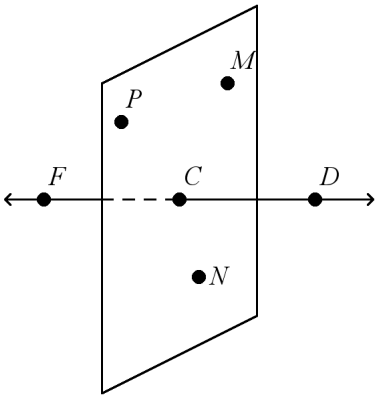
C.

D.

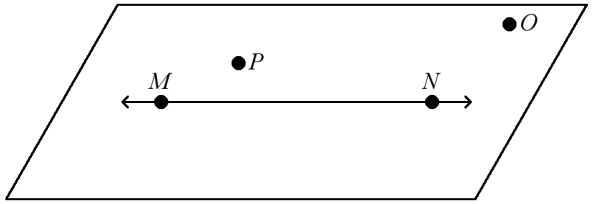
2. What are the names of three collinear points?



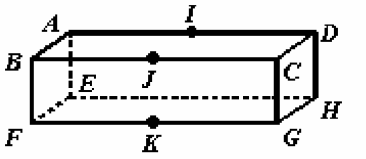
3. What are the names of four coplanar points?



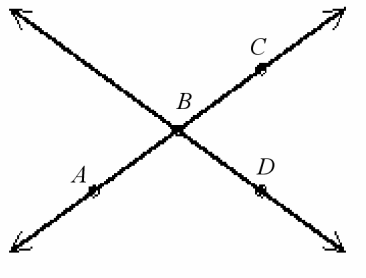
4. Name the line and plane shown in the diagram.



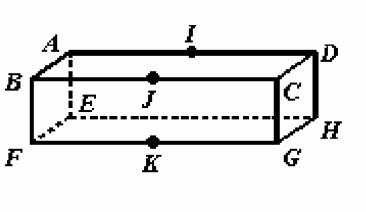
5. Are points *B*, *J*, and *C* collinear or noncollinear?



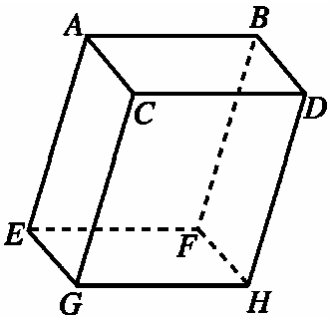
6. Are *C*, *B*, and *D* collinear? If so, name the line on which they lie.



7. Name the plane represented by the front of the box.

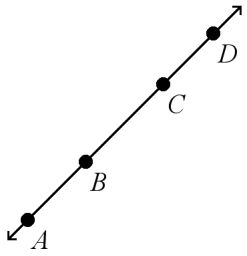


8. What are the names of three planes that contain point *G*?

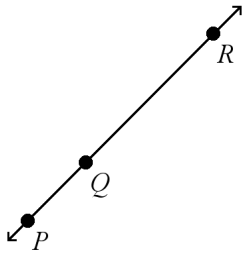


9. Name the ray in the figure.

10. What is the name of the ray that is opposite $\overrightarrow{CA}$?



11. What are the names of the segments in the figure?



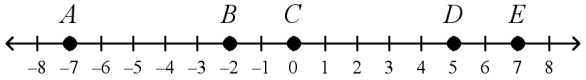
12. Name the intersection of plane *OAH* and plane *DAH*.

13. If $EF = 5$ and $EG = 17$, find the value of FG. The drawing is not to scale.

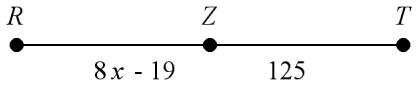
14. If $EF = 10x + 17$, $FG = 35$, and $EG = 142$, find the value of x. The drawing is not to scale.

15. If $EF = 3x - 20$, $FG = 2x - 6$, and $EG = 29$, find the values of x, EF, and FG. The drawing is not to scale.

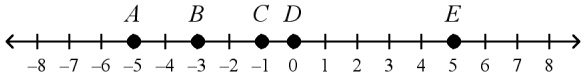
16. What segment is congruent to $\overline{CD}$?



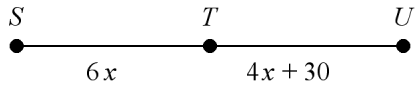
17. If Z is the midpoint of $\overline{RT}$, what are x, RZ, and RT?



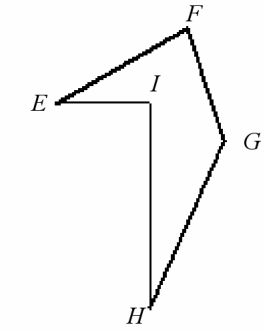
18. Which point is the midpoint of $\overline{AE}$?



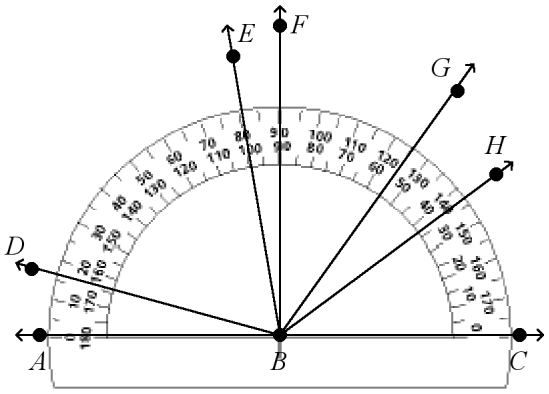
19. If T is the midpoint of $\overline{SU}$, what are ST, TU, and SU?



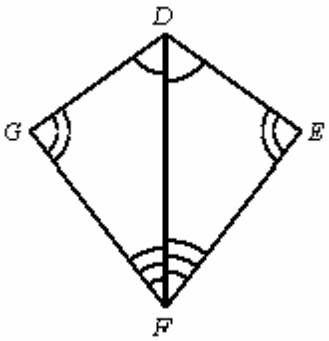
20. Judging by appearance, name an acute angle, an obtuse angle, and a right angle.



21. What are the measures of $\angle ABF$ and $\angle CBA$? Classify each angle as *acute*, *right*, *obtuse*, or *straight*.

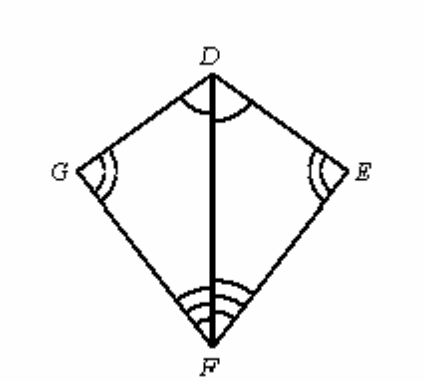


22. Complete the statement.



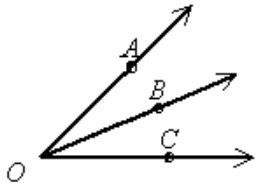
$\angle GDF \cong$?

23. Complete the statement.
The drawing is not to scale.

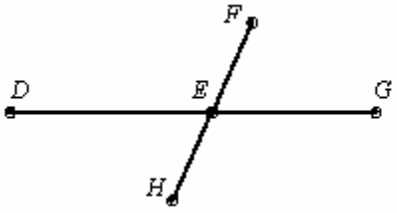


If $m\angle DGF = 78°$, then $m\angle DEF =$ ___?___.

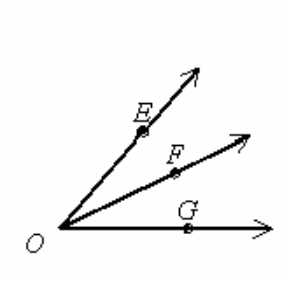
24. If $m\angle AOC = 79°$, $m\angle BOC = 2x + 10$, and $m\angle AOB = 4x - 15$, find the degree measure of $\angle BOC$ and $\angle AOB$. The diagram is not to scale.



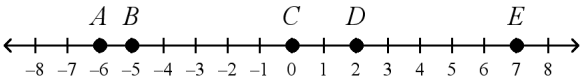
25. If $m\angle DEF = 102$, then what are $m\angle FEG$ and $m\angle HEG$? The diagram is not to scale.



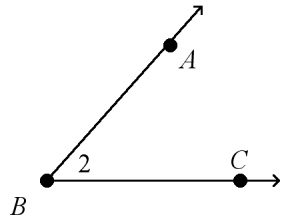
26. If $m\angle EOF = 37$ and $m\angle FOG = 31$, then what is the measure of $\angle EOG$? The diagram is not to scale.



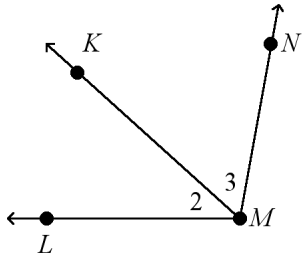
27. Are $\overline{BC}$ and $\overline{DE}$ congruent? Explain.



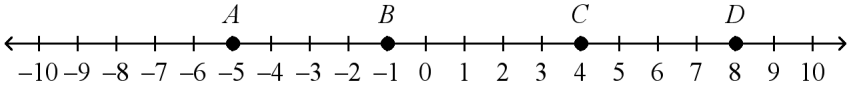
28. What are three names for the angle?



29. What are two other names for $\angle 2$?



30. What is the length of $\overline{AD}$?



7.1-7.4 Review
Answer Section

1. ANS: B PTS: 1 DIF: L2 REF: 7-4 Measuring Angles
   OBJ: 7-4.1 To find and compare the measures of angles NAT: CC G.CO.1| M.1.d| G.3.b
   TOP: 7-4 Problem 2 Measuring and Classifying Angles
   KEY: obtuse angle | straight angle | right angle | acute angle
2. ANS:
   Points C, A, and B are collinear.

   PTS: 1 DIF: L3 REF: 7-2 Points, Lines, and Planes
   OBJ: 7-2.1 To understand basic terms and postulates of geometry
   NAT: CC G.CO.1| G.3.b| G.4.b TOP: 7-2 Problem 1 Naming Points, Lines, and Planes
   KEY: collinear | point
3. ANS:
   Points P, M, N, and C are coplanar.

   PTS: 1 DIF: L3 REF: 7-2 Points, Lines, and Planes
   OBJ: 7-2.1 To understand basic terms and postulates of geometry
   NAT: CC G.CO.1| G.3.b| G.4.b TOP: 7-2 Problem 1 Naming Points, Lines, and Planes
   KEY: coplanar | point
4. ANS:
   $\overleftrightarrow{MN}$ and plane MNP

   PTS: 1 DIF: L3 REF: 7-2 Points, Lines, and Planes
   OBJ: 7-2.1 To understand basic terms and postulates of geometry
   NAT: CC G.CO.1| G.3.b| G.4.b TOP: 7-2 Problem 1 Naming Points, Lines, and Planes
   KEY: line | plane
5. ANS:
   collinear

   PTS: 1 DIF: L3 REF: 7-2 Points, Lines, and Planes
   OBJ: 7-2.1 To understand basic terms and postulates of geometry
   NAT: CC G.CO.1| G.3.b| G.4.b TOP: 7-2 Problem 1 Naming Points, Lines, and Planes
   KEY: point | collinear points
6. ANS:
   No, the three points are not collinear.

   PTS: 1 DIF: L2 REF: 7-2 Points, Lines, and Planes
   OBJ: 7-2.1 To understand basic terms and postulates of geometry
   NAT: CC G.CO.1| G.3.b| G.4.b TOP: 7-2 Problem 1 Naming Points, Lines, and Planes
   KEY: point | line | collinear points

7. ANS:
GBF

PTS: 1 DIF: L2 REF: 7-2 Points, Lines, and Planes
OBJ: 7-2.1 To understand basic terms and postulates of geometry
NAT: CC G.CO.1| G.3.b| G.4.b TOP: 7-2 Problem 1 Naming Points, Lines, and Planes
KEY: plane

8. ANS:
planes *ACEG*, *CDGH*, and *GHAB*

PTS: 1 DIF: L4 REF: 7-2 Points, Lines, and Planes
OBJ: 7-2.1 To understand basic terms and postulates of geometry
NAT: CC G.CO.1| G.3.b| G.4.b TOP: 7-2 Problem 1 Naming Points, Lines, and Planes
KEY: plane | point

9. ANS:
$\overrightarrow{PQ}$

PTS: 1 DIF: L2 REF: 7-2 Points, Lines, and Planes
OBJ: 7-2.1 To understand basic terms and postulates of geometry
NAT: CC G.CO.1| G.3.b| G.4.b TOP: 7-2 Problem 2 Naming Segments and Rays
KEY: ray

10. ANS:
$\overrightarrow{CD}$

PTS: 1 DIF: L2 REF: 7-2 Points, Lines, and Planes
OBJ: 7-2.1 To understand basic terms and postulates of geometry
NAT: CC G.CO.1| G.3.b| G.4.b TOP: 7-2 Problem 2 Naming Segments and Rays
KEY: ray | opposite rays

11. ANS:
The three segments are $\overline{PQ}$, $\overline{QR}$, and $\overline{PR}$.

PTS: 1 DIF: L3 REF: 7-2 Points, Lines, and Planes
OBJ: 7-2.1 To understand basic terms and postulates of geometry
NAT: CC G.CO.1| G.3.b| G.4.b TOP: 7-2 Problem 2 Naming Segments and Rays
KEY: segment

12. ANS:
$\overleftrightarrow{AH}$

PTS: 1 DIF: L4 REF: 7-2 Points, Lines, and Planes
OBJ: 7-2.1 To understand basic terms and postulates of geometry
NAT: CC G.CO.1| G.3.b| G.4.b TOP: 7-2 Problem 3 Finding the Intersection of Two Planes
KEY: plane | intersection

13. ANS:
12

PTS: 1 DIF: L2 REF: 7-3 Measuring Segments
OBJ: 7-3.1 To find and compare lengths of segments NAT: CC G.CO.1| CC G.GPE.6| G.3.b
TOP: 7-3 Problem 2 Using the Segment Addition Postulate KEY: coordinate | distance

14. ANS:
$x = 9$

PTS: 1 DIF: L3 REF: 7-3 Measuring Segments
OBJ: 7-3.1 To find and compare lengths of segments NAT: CC G.CO.1| CC G.GPE.6| G.3.b
TOP: 7-3 Problem 2 Using the Segment Addition Postulate KEY: coordinate | distance

15. ANS:
$x = 11$, $EF = 13$, $FG = 16$

PTS: 1 DIF: L4 REF: 7-3 Measuring Segments
OBJ: 7-3.1 To find and compare lengths of segments NAT: CC G.CO.1| CC G.GPE.6| G.3.b
TOP: 7-3 Problem 2 Using the Segment Addition Postulate KEY: coordinate | distance

16. ANS:
$\overline{AB}$

PTS: 1 DIF: L3 REF: 7-3 Measuring Segments
OBJ: 7-3.1 To find and compare lengths of segments NAT: CC G.CO.1| CC G.GPE.6| G.3.b
TOP: 7-3 Problem 3 Comparing Segment Lengths KEY: congruent segments

17. ANS:
$x = 18$, $RZ = 125$, and $RT = 250$

PTS: 1 DIF: L3 REF: 7-3 Measuring Segments
OBJ: 7-3.1 To find and compare lengths of segments NAT: CC G.CO.1| CC G.GPE.6| G.3.b
TOP: 7-3 Problem 4 Using the Midpoint KEY: midpoint

18. ANS:
D

PTS: 1 DIF: L2 REF: 7-3 Measuring Segments
OBJ: 7-3.1 To find and compare lengths of segments NAT: CC G.CO.1| CC G.GPE.6| G.3.b
TOP: 7-3 Problem 4 Using the Midpoint KEY: midpoint

19. ANS:
$ST = 90$, $TU = 90$, and $SU = 180$

PTS: 1 DIF: L4 REF: 7-3 Measuring Segments
OBJ: 7-3.1 To find and compare lengths of segments NAT: CC G.CO.1| CC G.GPE.6| G.3.b
TOP: 7-3 Problem 4 Using the Midpoint KEY: midpoint

20. ANS:
$\angle E$, $\angle G$, $\angle I$

PTS: 1 DIF: L3 REF: 7-4 Measuring Angles
OBJ: 7-4.1 To find and compare the measures of angles NAT: CC G.CO.1| M.1.d| G.3.b
TOP: 7-4 Problem 2 Measuring and Classifying Angles KEY: acute angle | right angle | obtuse angle

21. ANS:
$m\angle ABF = 90°$; $\angle ABF$ is right.
$m\angle CBA = 180°$; $\angle CBA$ is straight.

PTS: 1 DIF: L3 REF: 7-4 Measuring Angles
OBJ: 7-4.1 To find and compare the measures of angles NAT: CC G.CO.1| M.1.d| G.3.b
TOP: 7-4 Problem 2 Measuring and Classifying Angles
KEY: acute angle | right angle | obtuse angle | measure of an angle

22. ANS:
$\angle EDF$

PTS: 1 DIF: L3 REF: 7-4 Measuring Angles
OBJ: 7-4.1 To find and compare the measures of angles NAT: CC G.CO.1| M.1.d| G.3.b
TOP: 7-4 Problem 3 Using Congruent Angles KEY: congruent angles

23. ANS:
78°

PTS: 1 DIF: L3 REF: 7-4 Measuring Angles
OBJ: 7-4.1 To find and compare the measures of angles NAT: CC G.CO.1| M.1.d| G.3.b
TOP: 7-4 Problem 3 Using Congruent Angles KEY: congruent angles

24. ANS:
$m\angle BOC = 38°$; $m\angle AOB = 41°$

PTS: 1 DIF: L3 REF: 7-4 Measuring Angles
OBJ: 7-4.1 To find and compare the measures of angles NAT: CC G.CO.1| M.1.d| G.3.b
TOP: 7-4 Problem 4 Using the Angle Addition Postulate KEY: Angle Addition Postulate

25. ANS:
$m\angle FEG = 78$, $m\angle HEG = 102$

PTS: 1 DIF: L3 REF: 7-4 Measuring Angles
OBJ: 7-4.1 To find and compare the measures of angles NAT: CC G.CO.1| M.1.d| G.3.b
TOP: 7-4 Problem 4 Using the Angle Addition Postulate KEY: Angle Addition Postulate

26. ANS:
68

PTS: 1 DIF: L3 REF: 7-4 Measuring Angles
OBJ: 7-4.1 To find and compare the measures of angles NAT: CC G.CO.1| M.1.d| G.3.b
TOP: 7-4 Problem 4 Using the Angle Addition Postulate KEY: Angle Addition Postulate

27. ANS:
Yes, $BC = \left|0 - (-5)\right| = 5$ and $DE = |7 - 2| = 5$.
Segments that have the same length are congruent.

PTS: 1 DIF: L3 REF: 7-3 Measuring Segments
OBJ: 7-3.1 To find and compare lengths of segments NAT: CC G.CO.1| CC G.GPE.6| G.3.b
TOP: 7-3 Problem 3 Comparing Segment Lengths KEY: congruent segments

28. ANS:
Answers may vary. Sample: $\angle 2$, $\angle B$, $\angle ABC$

PTS: 1 DIF: L2 REF: 7-4 Measuring Angles
OBJ: 7-4.1 To find and compare the measures of angles NAT: CC G.CO.1| M.1.d| G.3.b
TOP: 7-4 Problem 1 Naming Angles KEY: angle

29. ANS:
$\angle LMK$ and $\angle KML$

PTS: 1 DIF: L3 REF: 7-4 Measuring Angles
OBJ: 7-4.1 To find and compare the measures of angles NAT: CC G.CO.1| M.1.d| G.3.b
TOP: 7-4 Problem 1 Naming Angles KEY: angle

30. ANS:
13

PTS: 1 DIF: L2 REF: 7-3 Measuring Segments
OBJ: 7-3.1 To find and compare lengths of segments NAT: CC G.CO.1| CC G.GPE.6| G.3.b
TOP: 7-3 Problem 1 Measuring Segment Lengths KEY: coordinate | distance