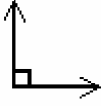


7.1-7.4 Review

1. Which angle is an obtuse angle?

A.



B.



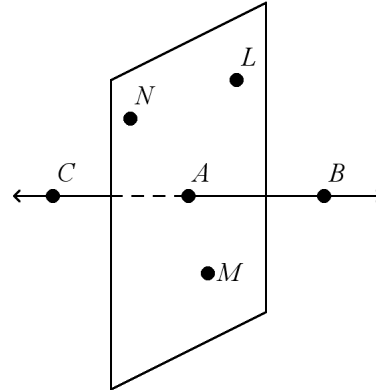
C.



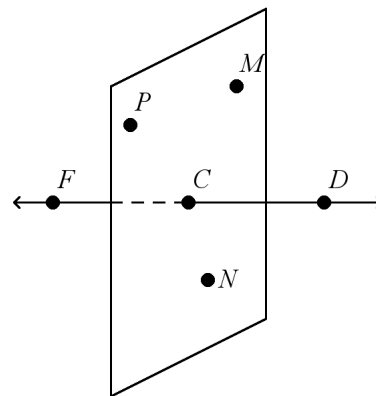
D.



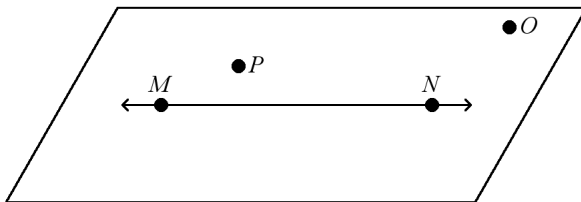
2. What are the names of three collinear points?



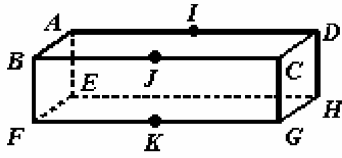
3. What are the names of four coplanar points?



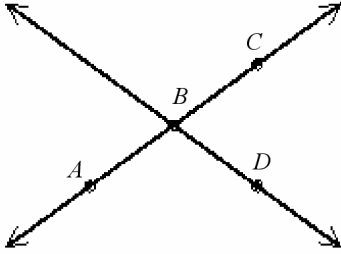
4. Name the line and plane shown in the diagram.



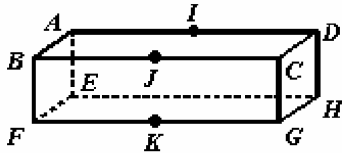
5. Are points  $B$ ,  $J$ , and  $C$  collinear or noncollinear?



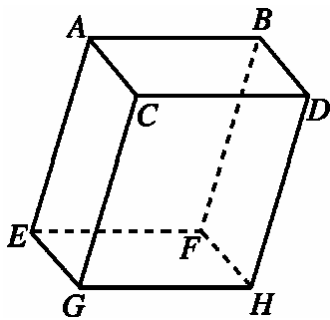
6. Are  $C$ ,  $B$ , and  $D$  collinear? If so, name the line on which they lie.



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



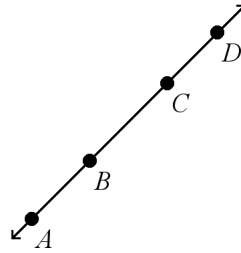
8. What are the names of three planes that contain point  $G$ ?



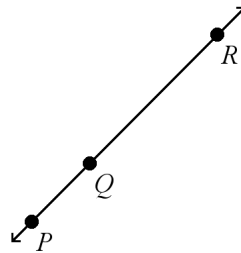
9. Name the ray in the figure.



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



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

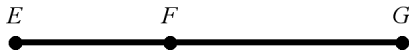


12. Name the intersection of plane  $OAH$  and plane  $DAH$ .

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



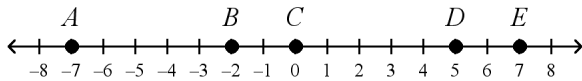
14. If  $EF = 10x + 17$ ,  $FG = 35$ , and  $EG = 142$ , find the value of  $x$ . The drawing is not to scale.



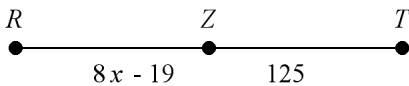
15. If  $EF = 3x - 20$ ,  $FG = 2x - 6$ , and  $EG = 29$ , find the values of  $x$ ,  $EF$ , and  $FG$ . The drawing is not to scale.



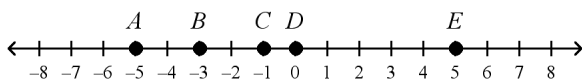
16. What segment is congruent to  $\overline{CD}$ ?



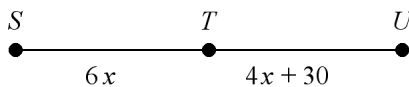
17. If  $Z$  is the midpoint of  $\overline{RT}$ , what are  $x$ ,  $RZ$ , and  $RT$ ?



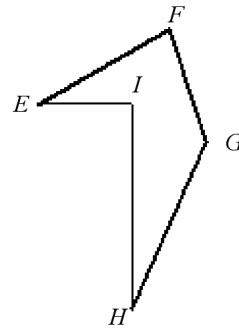
18. Which point is the midpoint of  $\overline{AE}$ ?



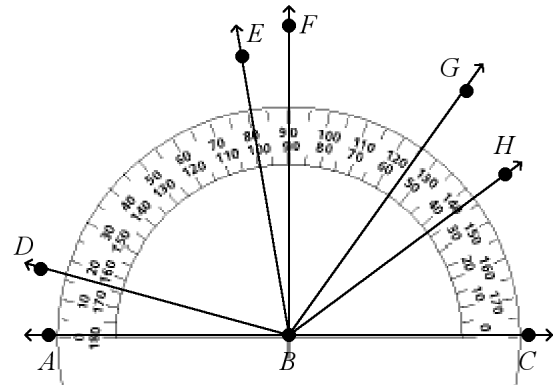
19. If  $T$  is the midpoint of  $\overline{SU}$ , what are  $ST$ ,  $TU$ , and  $SU$ ?



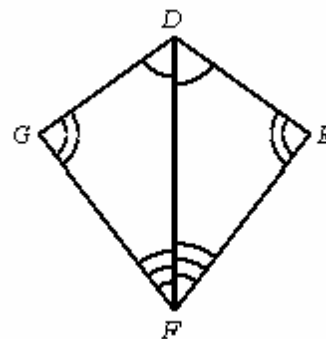
20. Judging by appearance, name an acute angle, an obtuse angle, and a right angle.



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

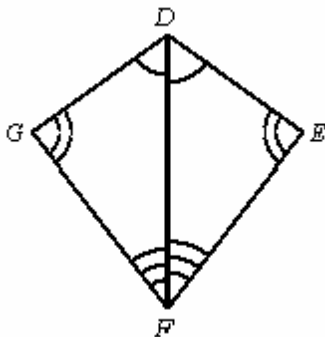


22. Complete the statement.



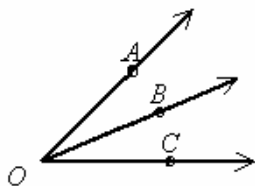
$\angle GDF \cong \underline{\hspace{1cm}}$

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

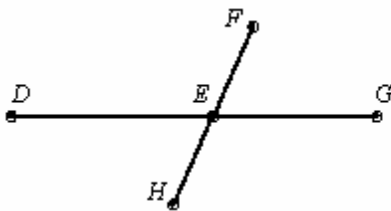


If  $m\angle DGF = 78^\circ$ , then  $m\angle DEF = \underline{\quad? \quad}$ .

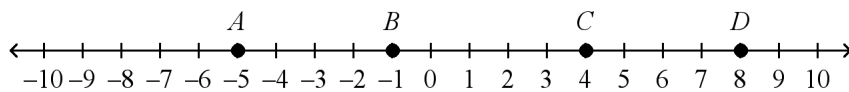
24. If  $m\angle AOC = 79^\circ$ ,  $m\angle BOC = 2x + 10$ , and  $m\angle AOB = 4x - 15$ , find the degree measure of  $\angle BOC$  and  $\angle AOB$ . The diagram is not to scale.



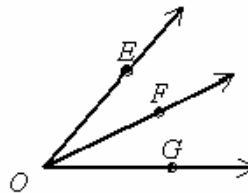
25. If  $m\angle DEF = 102$ , then what are  $m\angle FEG$  and  $m\angle HEG$ ? The diagram is not to scale.



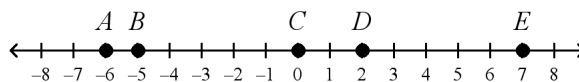
30. What is the length of  $\overline{AD}$ ?



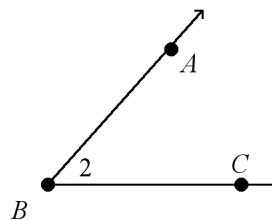
26. If  $m\angle EOF = 37$  and  $m\angle FOG = 31$ , then what is the measure of  $\angle EOG$ ? The diagram is not to scale.



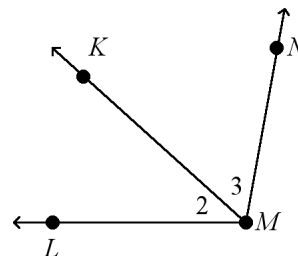
27. Are  $\overline{BC}$  and  $\overline{DE}$  congruent? Explain.



28. What are three names for the angle?



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



## 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:  
 $x = 18, RZ = 125, \text{ and } RT = 250$

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:  
 $ST = 90, TU = 90, \text{ and } SU = 180$

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:

$$m\angle ABF = 90^\circ; \angle ABF \text{ is right.}$$

$$m\angle CBA = 180^\circ; \angle CBA \text{ is straight.}$$

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:

$$78^\circ$$

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:

$$m\angle BOC = 38^\circ; m\angle AOB = 41^\circ$$

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:

$$\text{Yes, } BC = |0 - (-5)| = 5 \text{ and } DE = |7 - 2| = 5.$$

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