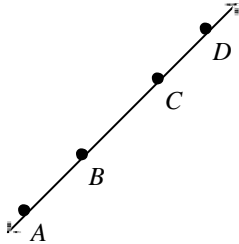


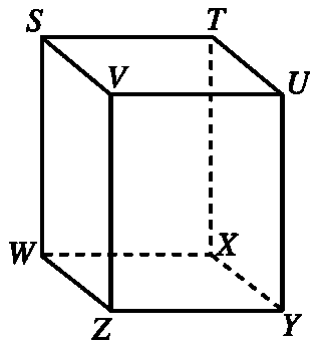




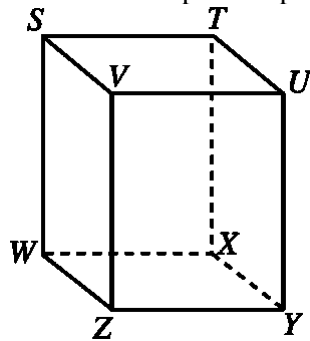
6. What is the name of the ray that is opposite  $\overrightarrow{BA}$ ?



7. What is the intersection of plane  $TUZX$  and plane  $VUYZ$ ?



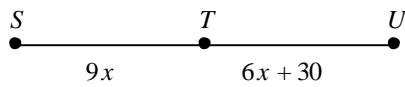
8. Name a fourth point in plane  $TUW$ .



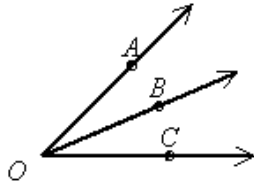
9. If  $EF = 2x - 12$ ,  $FG = 3x - 15$ , and  $EG = 23$ , find the values of  $x$ ,  $EF$ , and  $FG$ . The drawing is not to scale.



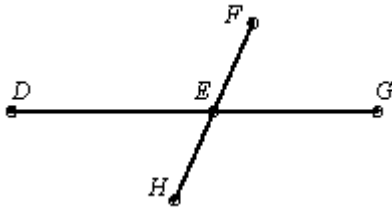
10. If  $T$  is the midpoint of  $\overline{SU}$ , what are  $ST$ ,  $TU$ , and  $SU$ ?



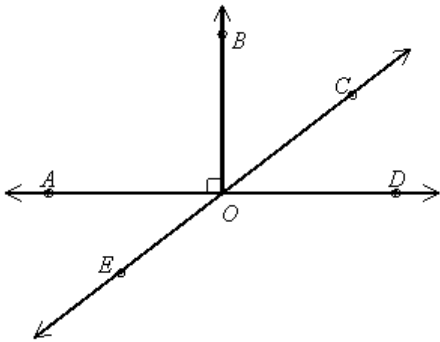
11. If  $m\angle AOC = 85^\circ$ ,  $m\angle BOC = 2x + 10$ , and  $m\angle AOB = 4x - 15$ , find the degree measure of  $\angle BOC$  and  $\angle AOB$ . The diagram is not to scale.



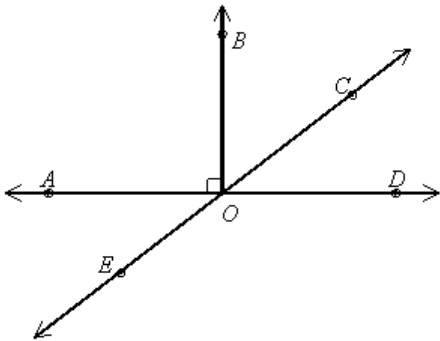
12. If  $m\angle DEF = 122$ , then what are  $m\angle FEG$  and  $m\angle HEG$ ? The diagram is not to scale.



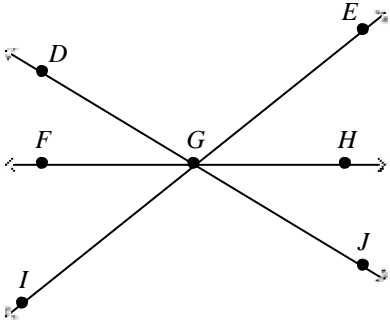
13. Name an angle supplementary to  $\angle COD$ .



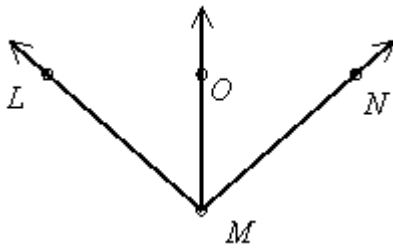
14. Name an angle complementary to  $\angle COD$ .



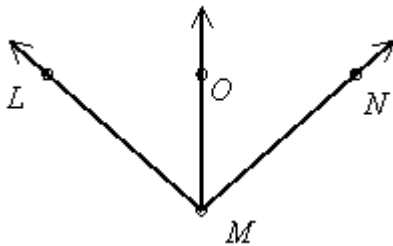
15. Name an angle vertical to  $\angle DGE$ .



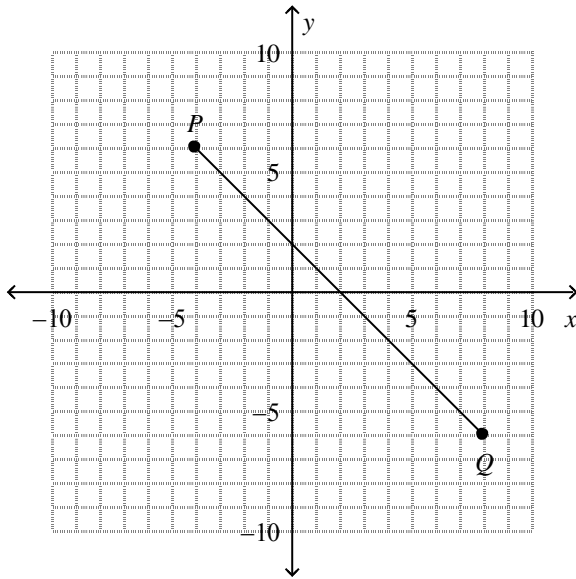
16. The complement of an angle is  $25^\circ$ . What is the measure of the angle?
17.  $\angle DFG$  and  $\angle JKL$  are complementary angles.  $m\angle DFG = x + 5$ , and  $m\angle JKL = x - 9$ . Find the measure of each angle.
18.  $\angle 1$  and  $\angle 2$  are a linear pair.  $m\angle 1 = x - 39$ , and  $m\angle 2 = x + 61$ . Find the measure of each angle.
19.  $\overrightarrow{MO}$  bisects  $\angle LMN$ ,  $m\angle LMO = 6x - 22$ , and  $m\angle NMO = 2x + 34$ . Solve for  $x$  and find  $m\angle LMN$ . The diagram is not to scale.



20.  $\overrightarrow{MO}$  bisects  $\angle LMN$ ,  $m\angle LMN = 5x - 23$ ,  $m\angle LMO = x + 32$ . Find  $m\angle NMO$ . The diagram is not to scale.



21. Find the midpoint of  $\overline{PQ}$ .

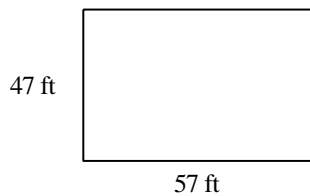


22.  $M$  is the midpoint of  $\overline{CF}$  for the points  $C(3, 4)$  and  $F(9, 8)$ . Find  $MF$ .

23.  $M(9, 8)$  is the midpoint of  $\overline{RS}$ . The coordinates of  $S$  are  $(10, 10)$ . What are the coordinates of  $R$ ?

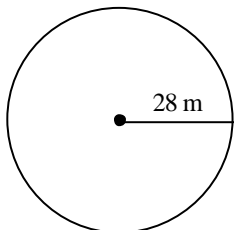
24. The Frostburg-Truth bus travels from Frostburg Mall through the city's center to Sojourner Truth Park. The mall is 3 miles east and 5 miles north of the city's center. Truth Park is 3 miles west and 4 miles south of the city's center. How far is it from Truth Park to the mall to the nearest tenth of a mile?

25. Find the perimeter of the rectangle. The drawing is not to scale.

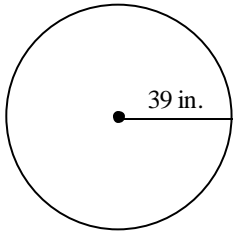


26. Jose wants to put a fence around his rectangular garden. His garden measures 33 feet by 39 feet. The garden has a path around it that is 3 feet wide. How much fencing material does Jose need to enclose the garden and path?

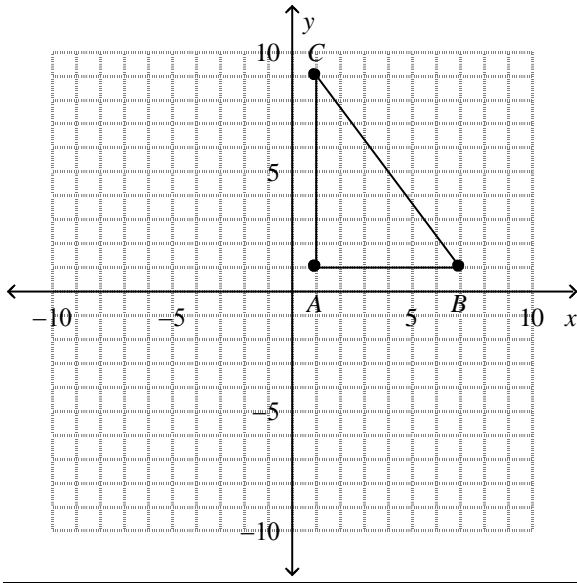
27. Find the circumference of the circle to the nearest tenth. Use 3.14 for  $\pi$ .



28. Find the circumference of the circle in terms of  $\pi$ .

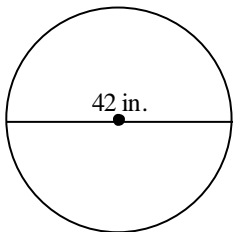


29. Find the perimeter of  $\triangle ABC$  with vertices  $A(1, 1)$ ,  $B(7, 1)$ , and  $C(1, 9)$ .

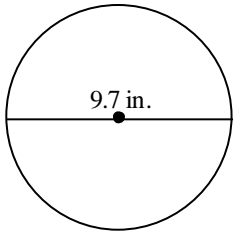


30. If the perimeter of a square is 72 inches, what is its area?

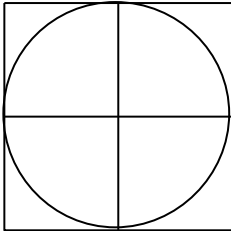
31. Find the area of the circle in terms of  $\pi$ .



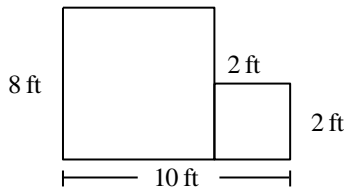
32. Find the area of the circle to the nearest tenth. Use 3.14 for  $\pi$ .



33. Find, to the nearest tenth, the area of the region that is inside the square and outside the circle. The circle has a diameter of 14 inches.

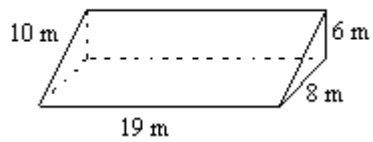


34. The figure is formed from rectangles. Find the total area. The diagram is not to scale.

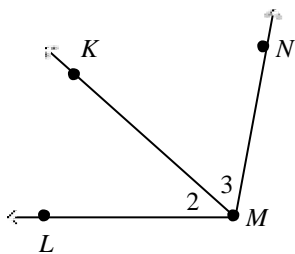


**Draw a net for the figure shown. Label the net with its dimensions.**

- 35.



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



## Geometry Study Guide Test #2

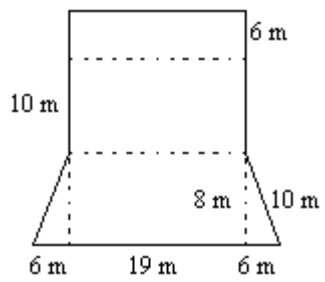
### Answer Section

#### MULTIPLE CHOICE

1. A
2. C
3. B

#### SHORT ANSWER

4. 17 cubes
5.  $\overrightarrow{BA}$
6.  $\overrightarrow{BD}$
7.  $\overleftrightarrow{UY}$
8. Z
9.  $x = 10$ ,  $EF = 8$ ,  $FG = 15$
10.  $ST = 90$ ,  $TU = 90$ , and  $SU = 180$
11.  $m\angle BOC = 40^\circ$ ;  $m\angle AOB = 45^\circ$
12.  $m\angle FEG = 58$ ,  $m\angle HEG = 122$
13.  $\angle COA$
14.  $\angle COB$
15.  $\angle JGI$
16.  $65^\circ$
17.  $\angle DFG = 52$ ,  $\angle JKL = 38$
18.  $\angle 1 = 40$ ,  $\angle 2 = 140$
19.  $x = 14$ ,  $m\angle LMN = 124$
20. 61
21. (2, 0)
22.  $\sqrt{13}$
23. (8, 6)
24. 10.8 miles
25. 208 feet
26. 168 ft
27. 175.8 m
28.  $78\pi$  in.
29. 24 units
30.  $324 \text{ in.}^2$
31.  $441\pi \text{ in.}^2$
32.  $73.9 \text{ in.}^2$
33.  $42.1 \text{ in.}^2$
34.  $68 \text{ ft}^2$
35. Answers may vary. Sample answer:



36.  $\angle LMK$  and  $\angle KML$