Geometry
ASSIGNMENT 1.3

1. A _____ has no dimension and is represented by a dot.

2. A _____ is one-dimensional and is always straight.

3. A _____is two-dimensional and is always flat.

4. Points are _____ if they lie on the same line.

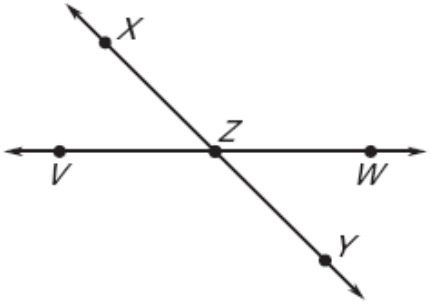
5. Points are _____ if they lie on the same plane.

6. A _____ is a portion of a line consisting of two endpoints.

7. A _____ is a portion of a line that has one endpoint and extends into infinity in one direction.

8. Two geometric figures _____ or cross if they share one or more points in common.

Use the diagram to the right to complete the following problems.



9. Name two sets of three collinear points.

10. Name five coplanar points.

11. Give a different name for $\overleftrightarrow{XY}$ using the same points.

12. Give two different names for $\overleftrightarrow{XY}$ using two different sets of points.

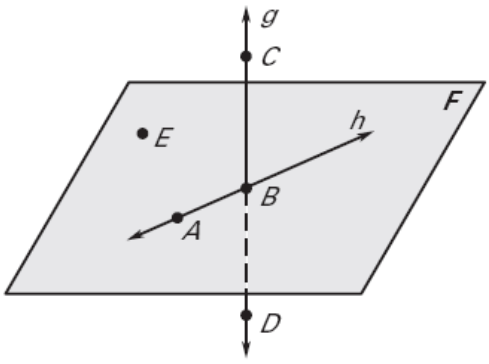
13. Name two smaller segments that are collinear with $\overline{VW}$.

14. Name four rays with endpoint Z.

15. Give another name for $\overrightarrow{WV}$.

16. Name the intersection of $\overleftrightarrow{XY}$ and $\overleftrightarrow{VW}$.

Use the diagram to the right to complete the following problems.



17. Give two other names for $\overleftrightarrow{AB}$.

18. Name three collinear points.

19. Give another name for plane F.

20. Name a point that is collinear with points B and C.

21. Name a point that is noncoplanar with points A, B, and E.

22. Give another name for $\overline{CD}$.

23. Name three rays with endpoint B.

24. Give another name for $\overrightarrow{CD}$.

25. Name the intersection of plane F and $\overleftrightarrow{CD}$.

26. Name the intersection of plane F and line h.

Use the diagram to the right to complete the following problems.

27. Are points J, K, and L collinear?

28. Are points N, J, and Q coplanar?

29. Are points J, K, and M collinear?

30. Are points J, K, M, and Q coplanar?

31. Name the intersection of $\overleftrightarrow{KL}$ and $\overleftrightarrow{PQ}$.

32. Name the intersection of $\overleftrightarrow{KL}$ and plane NJQ.

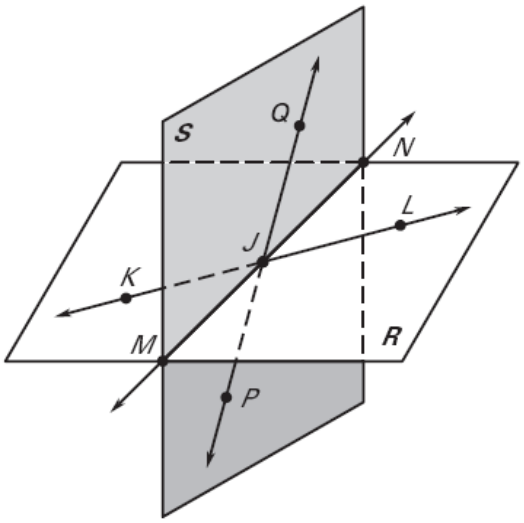
33. Name the intersection of plane R and plane S.

34. Name two segments on $\overleftrightarrow{KL}$ with endpoint L.

35. Name all rays with endpoint J.

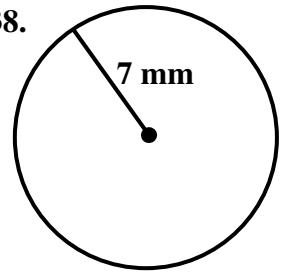
36. Are points K, J, M, and P coplanar?

37. Give five other names for $\overleftrightarrow{QP}$.

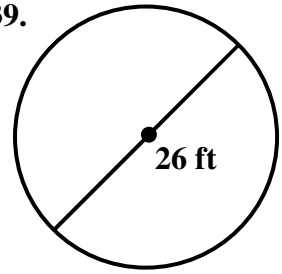


Find the circumference and area of the circle.
Leave answer in terms of π for #38 and #39.

38.

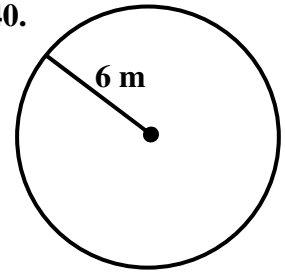


39.



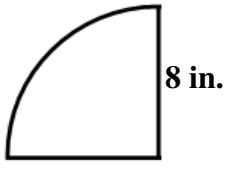
Round your answer to the nearest tenth.

40.

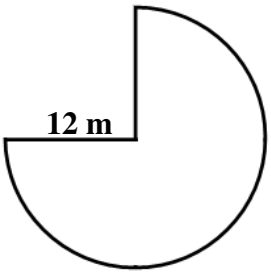


Find the area of the figure. Leave answer in terms of π.

41.



42.



43. The perimeter of a rectangle is 38 ft. and its length is 10 ft. Find the width.

44. The area of a rectangle is 63 $in.^2$ and its height is 7 in. What is the length of the base?

45. The area of a triangle is 48 m^2 and its base is 12 m. Find its height.

46. The area of a triangle is 18 ft^2 and its height is 9 ft. Find the base.

47. The circumference of a circle is 28π units What is the area?

48. The area of a circle is 121π mi^2. Find its circumference.

49. The area of a rectangle is 54 square inches and its height is 9 inches. What is the perimeter of the rectangle?

50. The length of a rectangle is four more than three times the width. Given the perimeter is 56 ft, find the dimensions (width and length) of the rectangle.

Draw a segment with indicated length.

51. $1\frac{7}{8}$ in.

52. 3 cm

53. 34 mm

Complete the conversion.

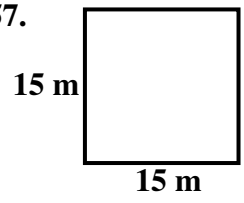
54. 50 in. = _____ ft

55. 10 ft = _____ yd

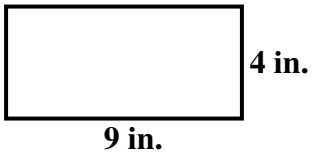
56. 83 mm = _____ cm

Find the perimeter and area of the figure.

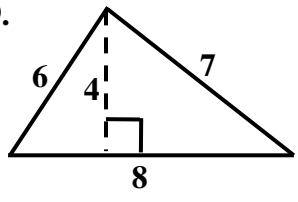
57.



58.

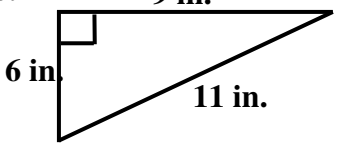


59.

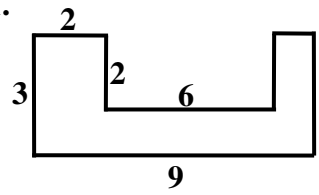


Find the perimeter and area of the figure.

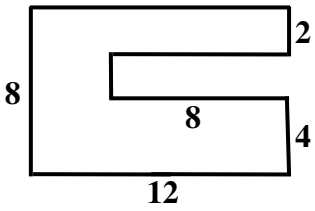
60.



61.

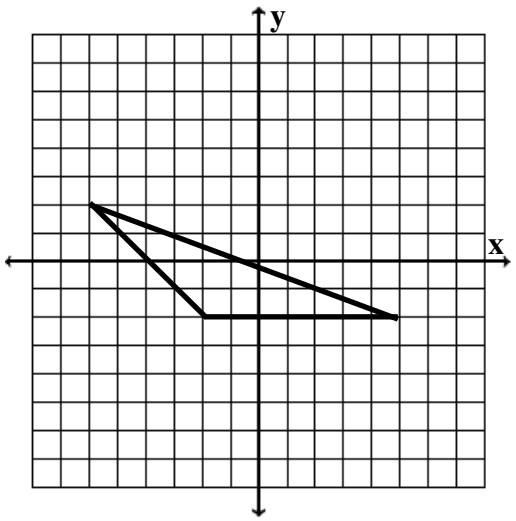


62.



Find the area of the figure on the coordinate plane.

63.



64. How many square inches are in one square foot?

Answer Key:

1) point **2)** line **3)** plane **4)** collinear **5)** coplanar **6)** segment **7)** ray **8)** intersect

9) X, Z, and Y; V, Z, and W **10)**X, Z, Y, V, and W **11)** $\overleftrightarrow{YX}$ **12)** $\overleftrightarrow{ZY}, \overleftrightarrow{XZ}$ **13)** $\overline{VZ}, \overline{ZW}$

14) $\overrightarrow{ZX}, \overrightarrow{ZW}, \overrightarrow{ZY}$, and $\overrightarrow{ZV}$ **15)** $\overrightarrow{WZ}$ **16)** Z **17)** $\overrightarrow{BA}$ and line h **18)** B, C, and D **19)** Plane EAB

20) D **21)** C or D **22)** $\overline{DC}$ **23)** $\overrightarrow{BC}, \overrightarrow{BA}$, and $\overrightarrow{BD}$ **24)** $\overrightarrow{CB}$ **25)** B **26)** Line h

27) Yes **28)** Yes **29)** No **30)** No **31)** J **32)** J **33)** $\overleftrightarrow{MN}$ **34)** $\overline{KL}$ and $\overline{JL}$

35) $\overrightarrow{JQ}, \overrightarrow{JK}, \overrightarrow{JP}, \overrightarrow{JL}, \overrightarrow{JM}$, and $\overrightarrow{JN}$ **36)** No **37)** $\overrightarrow{PQ}, \overrightarrow{JP}, \overrightarrow{PJ}, \overrightarrow{QJ}, \overrightarrow{JQ}$ **38)** $C = 14\pi$ mm, $A = 49\pi$ mm^2

39) $C = 26\pi$ ft, $A = 169\pi$ ft^2 **40)** $C = 37.7$ m, $A = 113.0$ m^2 **41)** $A = 16\pi$ in.^{2} **42)** $A = 108\pi$ m^2

43) $w = 9$ ft **44)** $\ell = 9$ in. **45)** $h = 8$ m **46)** $b = 4$ ft **47)** $A = 196\pi$ units^2 **48)** $C = 22\pi$ mi.

49) $P = 30$ in. **50)** 6 ft $\times$ 22 ft **51-53)** See Teacher **54)** $4\frac{1}{6}$ ft **55)** $3\frac{1}{3}$ yd **56)** $8\frac{3}{10}$ cm or 8.3 cm

57) $P = 60$ m, $A = 225$ m^2 **58)** $P = 26$ in., $A = 36$ in.^{2} **59)** $P = 21$ units, $A = 16$ units^2

60) $P = 26$ units, $A = 27$ units^2 **61)** $P = 28$ units, $A = 15$ units^2 **62)** $P = 56$ units, $A = 80$ units^2

63) $A = 14$ units^2 **64)** $A = 144$ in.^{2}