Geometry
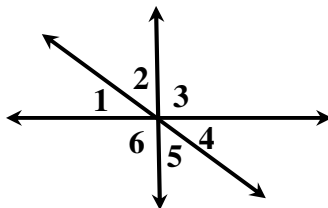**ASSIGNMENT 1.7**

1. The symbol for an angle is _____.

2. The point where the two sides of an angle meet is called the _____.

3. The measure of an angle is written in units called _____.

4. An angle can have a measure between _____ and _____ degrees.

5. The four types of angle classifications are: _____, _____, _____ and _____.

6. The notation m∠ABC = 64° means _____.

7. In Geometry, the word _____ (Symbol: _____) roughly means to be equal.

8. _____ are used on a diagram to show segments are congruent.

9. _____ are used to show angles are congruent.

10. State all the different names for the angle.   **11.** State all the different names for the dotted angle.
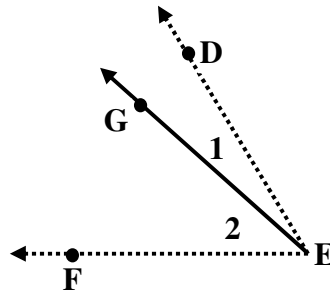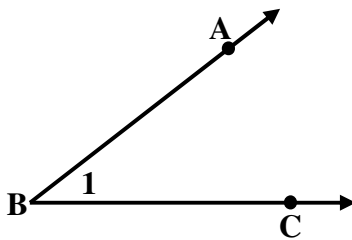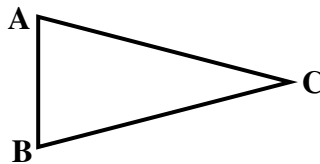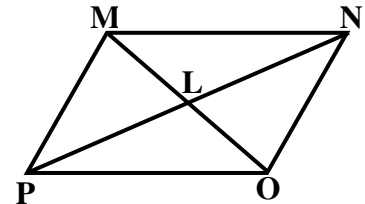
Shade the indicated angle.
12. ∠4   **13.** ∠ACB   **14.** ∠MLP

Construct an angle with the given information.
15. m∠1 = 40°   **16.** m∠B = 90°

Construct an angle with the given information.

17. m∠ABC = 110°

18. m∠QRS = 180°
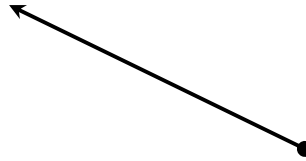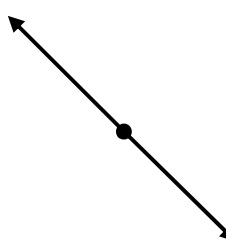
Come up with an approximation for the given angle.

19.
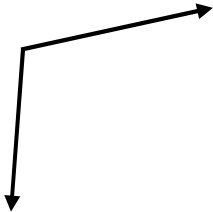
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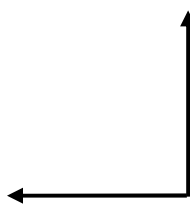
21.

22.
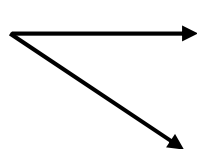
Classify each angle.

23. m∠ABC = 89°

24. m∠3 = 180°

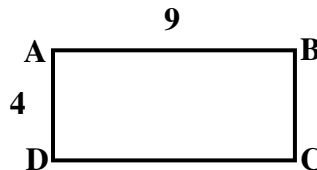**25.** m∠F = 90°

26. m∠XYZ = 152°

Label the diagram using the given information.

27. B is the midpoint of $\overline{AC}$.

A

B

10

C

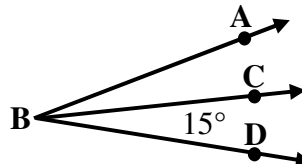**28.** $\overline{AB} \cong \overline{DC}$ and $\overline{AD} \cong \overline{BC}$

9

A   B

4

D   C

29. ∠GFH ≅ ∠IHF

F   G

I   H

30. ∠2 ≅ ∠4 and ∠1 ≅ ∠3

1 2
   3
   4

31. $\overrightarrow{BC}$ bisects ∠ABD.

A

C

B

15° D

32. m∠DEF = 85°

D

G

E

F
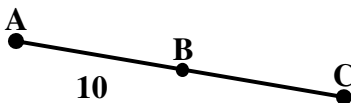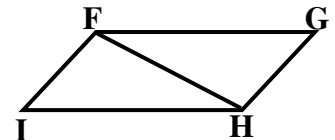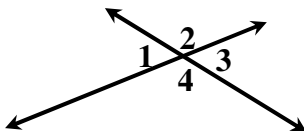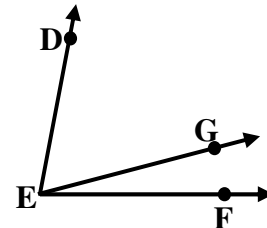
Write a congruence statement or statements based on the information depicted in the diagram.

33.

B

7

A   C

7

D

34.

D

E   F

35.

1 2
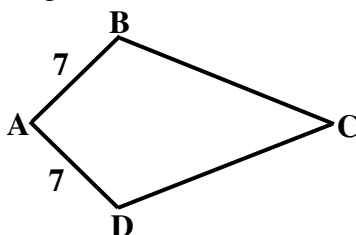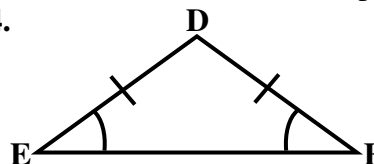
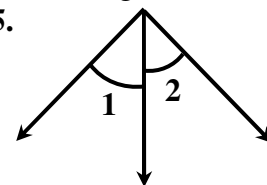**36.** Find the midpoint of $\overline{CD}$ given its endpoints.

C(−8,−3)   D(5,−9)

37. Given the midpoint $M(-4,0)$ and an endpoint F(−3,2) of $\overline{FG}$, find the other endpoint.

38. Find the length of segment $\overline{XY}$ given the coordinates of its endpoints.

X(−1,5)   Y(4,−7)

39. Find the distance between the endpoints of $\overline{AB}$.

A(−9,2)   B(−5,0)

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

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

41. Name three collinear points.

42. Give another name for plane F.

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

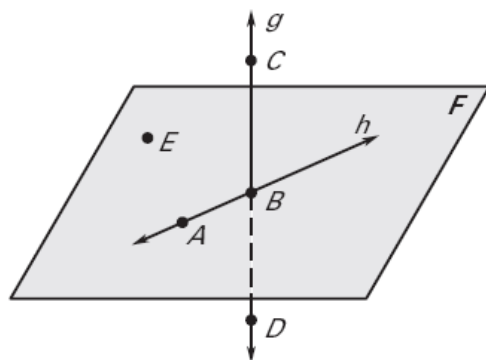**44.** Name a point that is noncoplanar with points A, B, and E.

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

46. Name three rays with endpoint B.

47. Give another name for $\overrightarrow{CD}$.
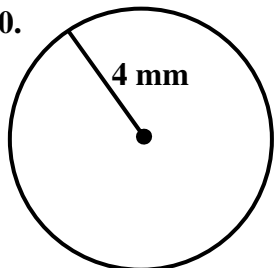
48. Name the intersection of plane F and $\overleftrightarrow{CD}$.

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

Find the circumference and area of the circle. Leave answer in terms of π.

50.

4 mm

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

51.

12 in.
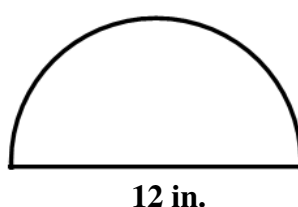
52. The area of a triangle is 42 m^2 and its base is 6 m. Find the height.

**53.** The circumference of a circle is 28π in.. Find its area.

54. The perimeter of a rectangle is 44 square inches and its height is 6 inches. What is the area of the rectangle?

55. The length of a rectangle is five more than two times the width. Given the perimeter is 82 ft, find the dimensions (width and length) of the rectangle.
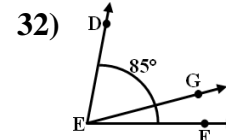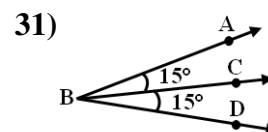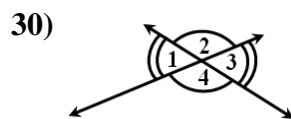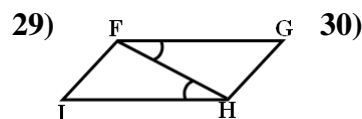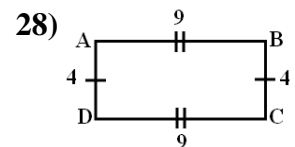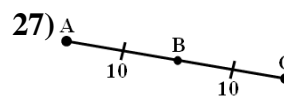
Answer Key:

1) $\angle$ **2)** vertex **3)** degrees **4)** 0, 180 **5)** acute, obtuse, right, straight
6) The measure of angle ABC is equal to 64 degrees **7)** congruent, $\cong$ **8)** Tick marks **9)** Arcs
10) $\angle$B, $\angle$ABC, $\angle$CBA, $\angle$1 **11)** $\angle$DEF or $\angle$FED
12)   **13)**   **14)**   **15)**
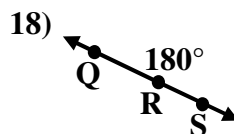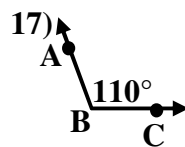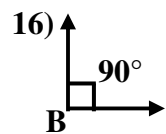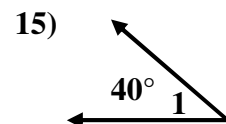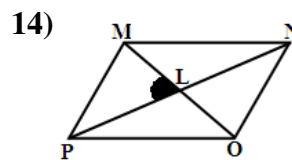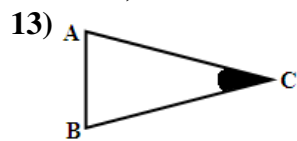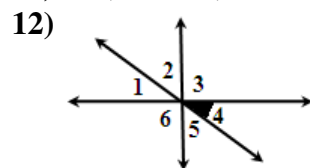
16)   **17)**   **18)**   **19)** $\approx 100°$ **20)** $\approx 90°$ **21)** $\approx 180°$ **22)** $\approx 45°$

23) acute **24)** straight **25)** right **26)** obtuse **27)**   **28)**

29)   **30)**   **31)**   **32)**

33) $\overline{AB} \cong \overline{AD}$ **34)** $\overline{ED} \cong \overline{DF}, \angle E \cong \angle F$ **35)** $\angle 1 \cong \angle 2$ **36)** $M\left(-1\frac{1}{2}, -6\right)$ **37)** $G(-5, -2)$

38) $XY = 13$ **39)** $AB = 2\sqrt{5}$ **40)** $\overrightarrow{BA}$ or line h **41)** C, B, and D **42)** Plane EAB **43)** D

44) C or D **45)** $\overline{DC}$ **46)** $\overrightarrow{BC}, \overrightarrow{BA},$ and $\overrightarrow{BD}$ **47)** $\overrightarrow{CB}$ **48)** B **49)** Line h

50) $C = 8\pi$ mm, $A = 16\pi$ mm^2 **51)** $A = 18\pi$ in.^{2} **52)** $h = 14$ m **53)** $A = 196\pi$ in.

54) $A = 96$ in.^{2} **55)** $w = 12$ ft, $\ell = 29$ ft