Geometry 1. Review Worksheet

Find the lengths of segments $AB$ and $BC$ in each situation.

1. $AB = 2x + 17$, $BC = 5x - 10$, $AB = BC$

   \[ A \quad B \quad C \quad D \]

Find the measures of a complementary angle, a supplementary angle, and a vertical angle for an angle with each given measure.

2. $47^\circ$

3. $29^\circ$

Name each polygon and tell whether it is equilateral, equiangular, regular, or none of these.

4.

5.

6.
7. Which statement(s) may be true about the two lines shown in the diagram?
I. The lines are coplanar.
II. The lines are parallel.
III. The lines intersect in one point.

   a. I only
   b. I and II only
   c. II and III only
   d. I and III only
   e. I, II, and III

8. What is the distance between point \( A(-3, 2) \) and point \( B(5, -1) \)?
   a. 2.2
   b. 73
   c. 8.5
   d. 11
   e. 5

9. In the diagram, what are the values of \( x \) and \( y \)?

   a. \( x = 47 \), \( y = 75 \)
   b. \( x = 47 \), \( y = 74 \)
   c. \( x = 75 \), \( y = 47 \)
   d. \( x = 71 \), \( y = 51 \)
   e. \( x = 45 \), \( y = 77 \)

10. \( \angle A \) and \( \angle T \) are complementary. The measure of \( \angle T \) is three times the measure of \( \angle A \). What is \( m\angle A \)?
    a. 22°
    b. 22.5°
    c. 23°
    d. 24°
    e. 23.5°
11. $\angle 1$ and $\angle 2$ in the diagram are ____ ?.

- a. vertical angles
- b. complementary
- c. a linear pair
- d. supplementary

12. Given points $G(2, 10)$ and $H(-6, -10)$, find the coordinates of the midpoint of $\overline{GH}$.

- a. $(-2, 10)$
- b. $(-4, 0)$
- c. $(-2, 0)$
- d. $(8, 20)$
- e. $(-4, -10)$

13. Which of the following statements is false?

- a. $A, B, C,$ and $D$ are coplanar.
- b. $A, B,$ and $D$ are collinear.
- c. $BE$ and $BA$ are opposite rays.
- d. Answers B and C only
- e. Answers A, B, and C

14. Given $\angle BAD$, and a third ray $AC$ in the interior of $\angle BAD$, if $m\angle BAC = 129^\circ$ and $m\angle CAD = 51^\circ$, then the two angles are ____ ?.

- a. supplementary
- b. complementary
- c. a linear pair
- d. supplementary and a linear pair
- e. complementary and a linear pair

Sketch the figure described.

15. One line that intersects a line in a different plane.
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Answer Section

1. \( AB = 35, BC = 35 \)
2. 43°, 133°, 47°
3. 61°, 151°, 29°
4. equilateral decagon
5. pentagon, none of these
6. equiangular octagon
7. D
8. C
9. A
10. B
11. A
12. C
13. C
14. D
15. Answer