

Geometry Test - Unit 1
Points, Lines, Planes and Angles

☺ Name: _____ ☺
Date: _____ Pd: _____

Definitions (1 - 4)

1) Segment

2) Opposite rays

3) Congruent

4) Supplementary angles

5) In $\angle XYZ$, the sides are _____ named _____ and _____.

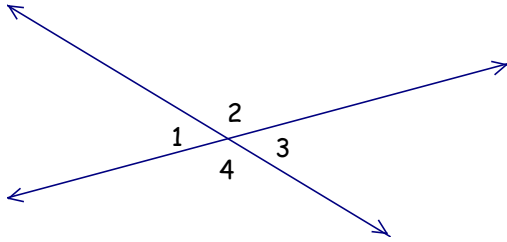
6) Name the three "undefined" terms that are the basis of Geometry.

7) Write the meaning of the symbol \overline{JK} in word form.

8) Write the Angle Addition Postulate.

9) Write the Slope Formula.

10) Name a linear pair. Linear pairs are _____.

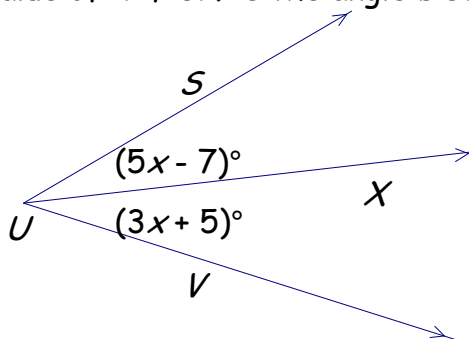


11) Find the coordinates of the midpoint of a segment with $C(1, 5)$ and $D(3, -3)$ as endpoints.

12) The midpoint of \overline{AB} is $M(-1, 5)$. One endpoint, A , is at $(-4, 4)$. Find the coordinate of the other endpoint, B .

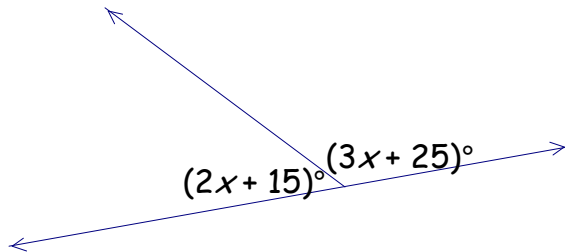
13) If the $m\angle ABC = 72^\circ$ and \overline{BD} bisects $\angle ABC$, find $m\angle ABD$.

14) Find the value of x if \overline{UX} is the angle bisector of $\angle SUV$.



15) If $m\angle A = 25^\circ$, find the value of x , if its supplement is given by $(7x + 15)^\circ$.

16) Given the linear pair, find the value of x .

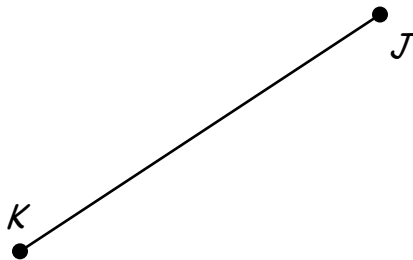


17) B is between A and C on \overline{AC} , $AB = (4n - 9)$, $BC = (4 + n)$, and $AC = 35$. Find the value of n .

18) Find the distance between $(2, 3)$ and $(5, 1)$.

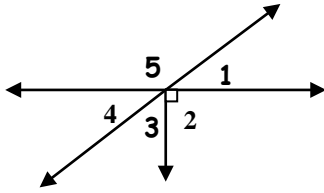
19) If two points lie in a plane, then the line joining them is _____.

20) Bisect the given segment.



Semester Exam Review

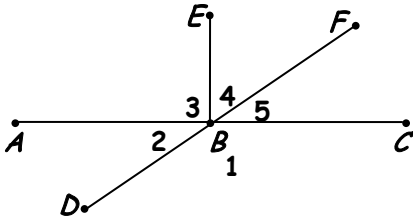
21. Use the diagram.



Which best describes the pair of angles $\angle 3$ and $\angle 4$?

- A. complementary
- B. linear pair
- C. supplementary
- D. vertical

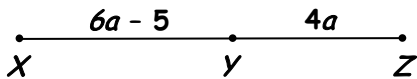
22. Use the diagram.



Which best describes the pair of angles $\angle 2$ and $\angle 5$?

- A. vertical
- B. supplementary
- C. linear pair
- D. adjacent

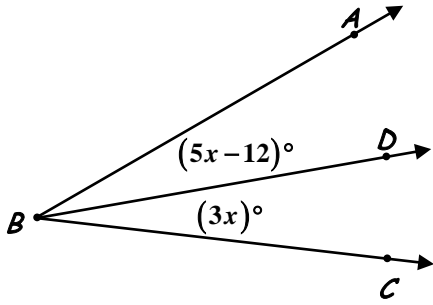
23. In the diagram, Y is between X and Z , and $XZ = 45$ cm.



What is the length of \overline{YZ} ?

- A. 5 cm
- B. 10 cm
- C. 20 cm
- D. 25 cm

24. In the diagram, $m\angle ABC = 44^\circ$.



What is the value of x ?

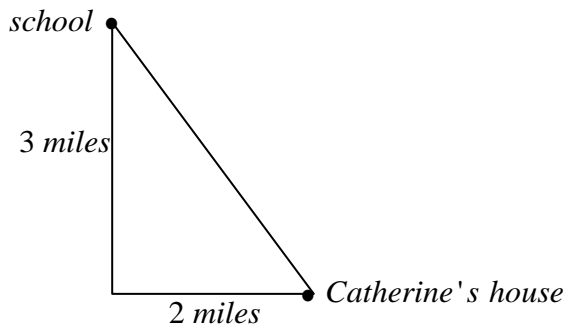
- A. 3
 - B. 4
 - C. 6
 - D. 7
25. What is the distance between points $A(-2, 1)$ and $B(1, 5)$?
- A. 5
 - B. 25
 - C. $\sqrt{5}$
 - D. $\sqrt{37}$
26. What are the coordinates of the midpoint of the segment joining the points $A(-3, 2)$ and $B(4, -4)$?
- A. $\left(\frac{1}{2}, -3\right)$
 - B. $\left(\frac{1}{2}, -1\right)$
 - C. $(1, -6)$
 - D. $(1, -2)$
27. $\triangle ABC$ is constructed with vertices $A(3, -4)$, $B(-1, 1)$, and $C(-7, 5)$. What is the length of \overline{AC} ?
- A. $\sqrt{19}$
 - B. $\sqrt{77}$
 - C. $\sqrt{101}$
 - D. $\sqrt{181}$

NHSPE Review

28. There are two routes that may be used to drive from Ashton's house to Catherine's house. The routes are described below.

Route 1: Drive 3 miles south and 2 miles east.

Route 2: Drive the straight road that goes directly from the school to Catherine's house.



How much longer is route 1 than route 2?