

NAME _____

DATE _____

PER. _____

CHAPTER 1 TEST REVIEW
GEOMETRY BASICS, SEGMENTS, & ANGLES

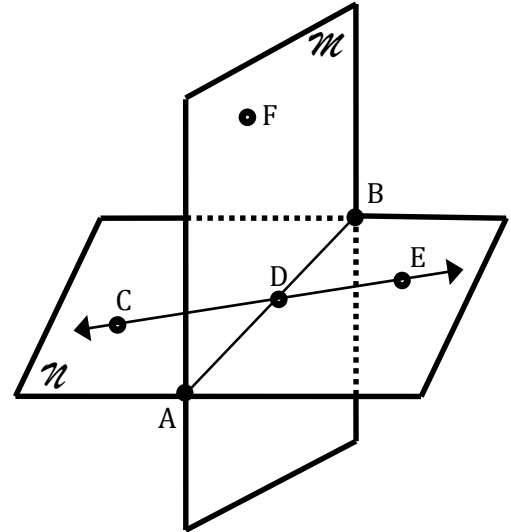
5 POINTS ADDED TO YOUR TEST, IF COMPLETE

1.1 Points, Lines, & Planes

Using the figure below, tell whether each statement is TRUE or FALSE.

If FALSE, provide an explanation.

_____	1. \overleftrightarrow{AE} is contained in \mathcal{M} . Explanation:
_____	2. F and B are collinear. Explanation:
_____	3. \overrightarrow{DE} and \overrightarrow{CD} are opposite rays. Explanation:
_____	4. C, A, & F are coplanar. Explanation:
_____	5. \mathcal{N} and \mathcal{M} intersect at D. Explanation:



Using the figure below, name each of the following, *and provide an explanation.*

6. The intersection of BAF and GHE: _____ Explanation:	
7. The intersection of CDA and \overleftrightarrow{HC} : _____ Explanation:	
8. A point collinear with G: _____ Explanation:	

1.2 Segments & Distance

Find the distance between the two points on a number line.

9. $d =$ _____	-3 and 5
10. $d =$ _____	-11 and -27

Find the length of the segment formed by connecting the points with the given coordinates.

Write your answers in simplest form! (NO DECIMALS!).

11. $d =$ _____	(3, 1) and (2, 4)
12. $d =$ _____	(-1, 4) and (-3, -4)

Given that B is between A and C, find the indicated length.

13. $BC =$ _____	$AB = 5.3$ and $AC = 6.7$. Find BC.
14. $AC =$ _____	$AB = 21$ and $BC = 4.3$. Find AC.

If B is between A and C, find the value of 'x' and BC.

15. $x =$ _____ $BC =$ _____	$AB = 3x$, $BC = 5x$, and $AC = 8$.
-------------------------------------	--

<p>16. $x =$ _____</p> <p>BC = _____</p>	<p>$AB = 3(x + 7)$, $BC = 2(x - 3)$, and $AC = 50$.</p>
---	--

1.3 Midpoint & Segment Bisector

Find the midpoint of the segment joining the two points on a number line.

<p>17. Midpoint: _____</p>	<p>-2 and 6</p>
<p>18. Midpoint: _____</p>	<p>4 and 12</p>

Find the midpoint of the segment formed by connecting each pair of coordinates.

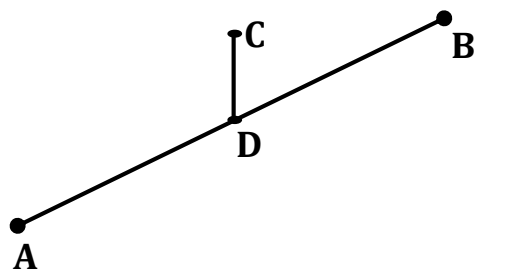
<p>19. Midpoint: (_____, _____)</p>	<p>(0, 0) and (2, 5)</p>
<p>20. Midpoint: (_____, _____)</p>	<p>(-3, 3) and (-8, -5)</p>

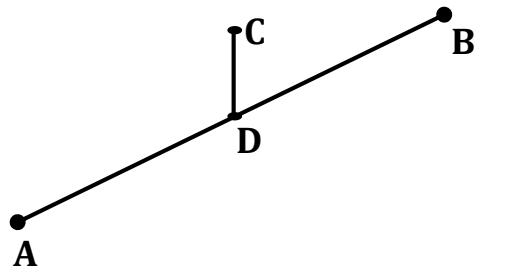
Given that B is the midpoint of \overline{AC} , find the coordinates of the endpoint indicated.

<p>21. C(_____, _____)</p>	<p>A(-5, 1) and B(-2, 0)</p>
----------------------------	------------------------------

22. A(_____, _____)	B(3, 7) and C(5, 10)
---------------------	----------------------

In the figure below, \overline{CD} bisects \overline{AB} at D. For each of the following, find the value of 'x' and the measure of the segment indicated.

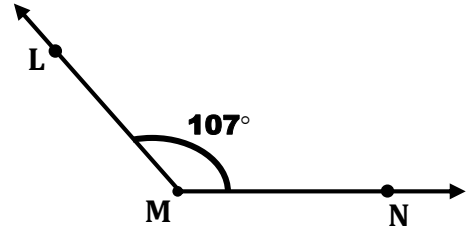
23. $x =$ _____ $AB =$ _____	$AD = 2x + 11$ $DB = 4x - 5$	
---------------------------------	---------------------------------	---

24. $x =$ _____ $AD =$ _____	$AB = 5x - 4$ $DB = x + 1$	
---------------------------------	-------------------------------	---

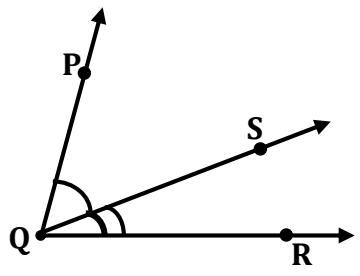
1.5 Angles

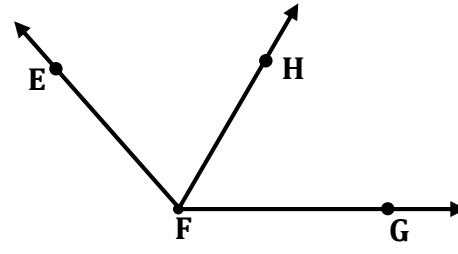
Use the figure below to answer the following questions. Be sure to use appropriate symbols where necessary.

25. _____	Name the angle.
26. _____	Name the vertex.
27. _____	Name the sides.
28. _____	Classify the angle.



Find the measures indicated.

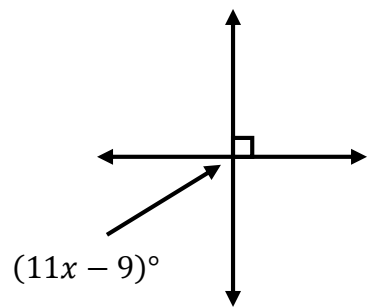
<p>29. $x =$ _____</p> <p>$m\angle SQR =$ _____</p>	<p>$m\angle PQR = 87^\circ$, $m\angle PQS = (5x - 3)^\circ$, and $m\angle SQR = (2x - 1)^\circ$</p> 
---	--

<p>30. $x =$ _____</p> <p>$m\angle EFG =$ _____</p>	<p>\overrightarrow{FH} bisects $\angle EFG$, $m\angle EFH = (8x - 3)^\circ$, and $m\angle HFG = (4x + 9)^\circ$</p> 
---	--

Classify the angles described.

31. _____	An angle with a measure of 33° .
32. _____	An angle with a measure of 111° .
33. _____	An angle with a measure of 89.9° .
34. _____	An angle with a measure of 180° .

Find the value of 'x'.

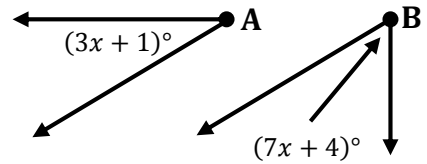
<p>35. $x =$ _____</p>	
-----------------------------------	---

For each of the following, identify the type of angle pair, and solve for 'x'.

36. Type: _____

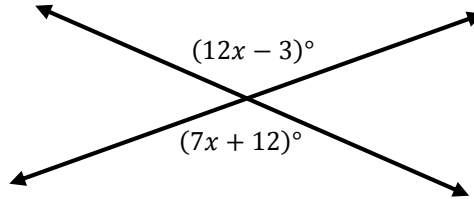
x = _____

$$m\angle A + m\angle B = 90^\circ$$



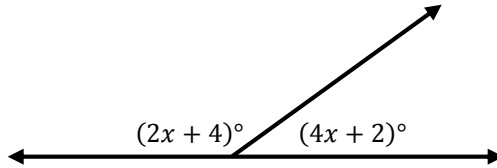
37. Type: _____

x = _____



38. Type: _____

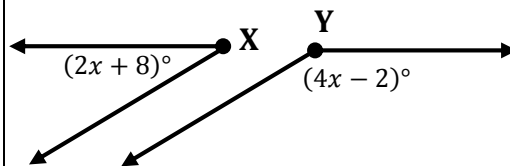
x = _____



39. Type: _____

x = _____

$$m\angle X + m\angle Y = 180^\circ$$



Find the measure of each angle described.

40. Equation: _____

Angle Measure: _____

Find the measure of an angle if its supplement is five times as large as the angle.

41. Equation: _____

Angle Measure: _____

Find the measure of an angle if its complement is ten more than four times the angle.

A Mishmash of Answers:

$5x + x = 180$ 1 8 42° 2

obtuse 8 $\overline{ML} \ \& \ \overline{MN}$ supplementary

TRUE C; a plane and a line intersect at a point 16

FALSE, two planes intersect at a line $\angle LMN$ or $\angle NML$ or $\angle M$ 9 acute M

$2\sqrt{17}$ $(1, -1)$ vertical 29 linear pair 3

$(-5.5, -1)$ or $(-\frac{11}{2}, -1)$ 30° $x + 4x + 10 = 90$ 3 acute

25° complementary TRUE 29

3 8 8.5 or $\frac{17}{2}$ 7 25.3 8 obtuse

5 straight 13 54

2 FALSE, \overline{DC} and \overline{DE} are opposite rays \overleftrightarrow{FE} ; two planes intersect at a line

FALSE, it is contained in N

$\sqrt{10}$ 1.4 16° $(1, 4)$

$(1, 2.5)$ or $(1, \frac{5}{2})$ Any of A – F or H; through any two points there is exactly one line