Name Key Period _____

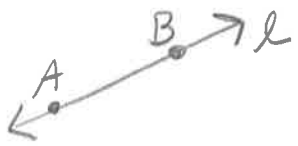
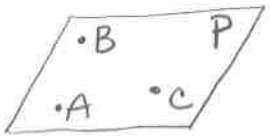
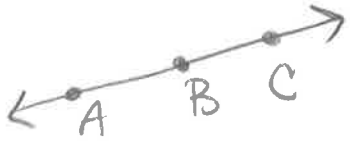
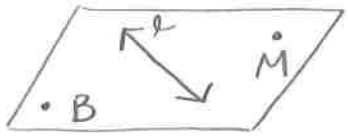
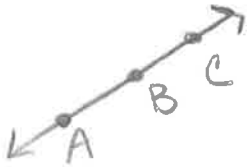
Chapter 1 Reference

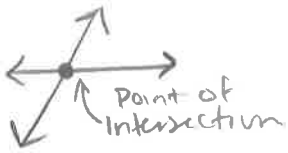
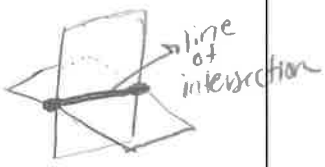
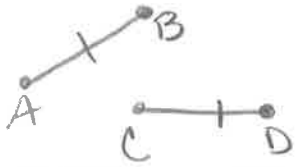
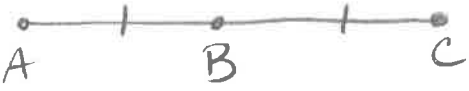
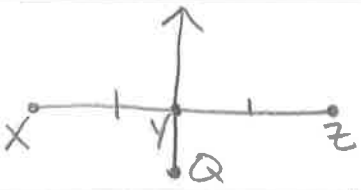
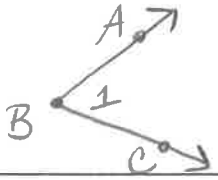
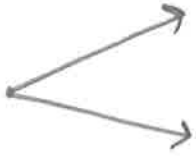
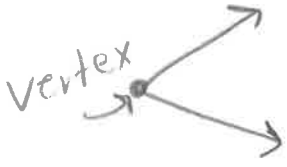
Geometry

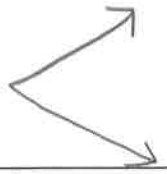
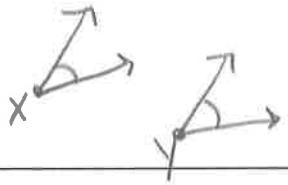
Vocabulary pages 2 - 6

Postulates page 7

Formulas page 8

Vocabulary Term and Definition	Diagram	Naming It
Point indicates a location and has no size	A.	Capital letter Point A
Line · straight path · neverending in 2 directions · no thickness		Cursive lower-case letter or 2 points $\overleftrightarrow{AB}$ or line ℓ
Plane · flat surface · extends in all directions · no thickness		Capital letter or 3 noncolinear points Plane P Plane ABC
Collinear Points points that lie on the same line		
Coplanar and lines points that lie in the same plane.		
Segment · part of a line · 2 endpoints		endpoints $\overline{AB}$
Ray · part of a line · 1 endpoint · goes on in one direction		
Opposite Ray · 2 rays · share an endpoint · form a straight line		$\overrightarrow{BA}$ and $\overrightarrow{BC}$
Postulate or Axiom an accepted statement of fact		

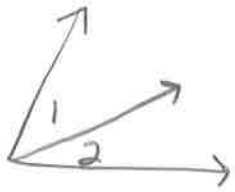
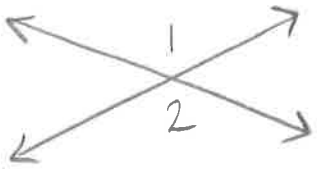
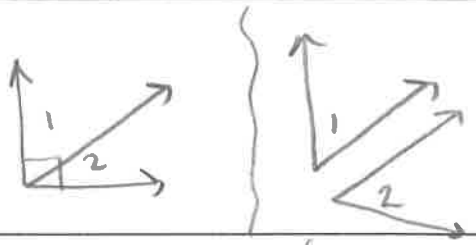
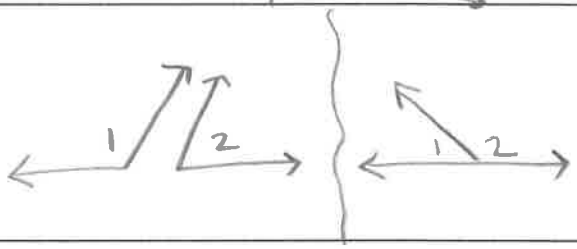
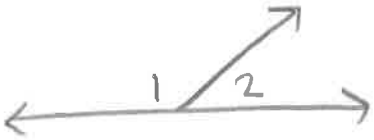
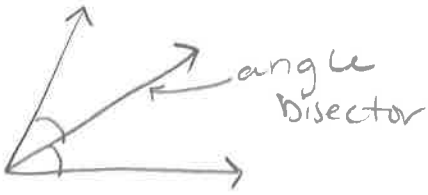
Vocabulary Term and Definition	Diagram	Naming It
Intersection the set of points shared by 2 or more geometric figures.	 	
Coordinate the real number that corresponds to a point		
Distance absolute value of the difference of the coordinates of 2 points.		
Congruent Segments segments that have the same length		$\overline{AB} \cong \overline{CD}$
Midpoint the point that divides a segment into 2 congruent parts.	 B is the midpoint of $\overline{AC}$	
Segment Bisector a point, line, ray or segment that divides a segment in half.	 $\overleftrightarrow{QY}$ is a segment bisector	
Angle formed by 2 rays with the same endpoint.		$\angle B$, $\angle 1$ $\angle ABC$, $\angle CBA$
Sides of an Angle the sides of an angle are rays.		
Vertex of an Angle • a point • the common endpoint of 2 rays		

Vocabulary Term and Definition	Diagram	Naming It
Measure of an Angle an angle is measured in degrees. ° $m\angle ABC = 30°$		
Acute Angle $0 < x < 90$		
Right Angle $x = 90$		
Obtuse Angle $90 < x < 180$		
Straight Angle $x = 180$		
Congruent Angles angles with the same measure		$\angle x \cong \angle y$

$\cong$ congruent

$AB = 10$ $\quad \overline{AB} \cong \overline{BC}$ } segments

$\angle A \cong \angle B$
$m\angle A = m\angle B$ } angles

Vocabulary Term and Definition	Diagram
Adjacent Angles • Common side • Common vertex • no overlapping	
Vertical Angles • 2 angles • Common vertex • sides are opposite rays	
Complementary Angles • 2 angles • sum of measures is 90°	
Supplementary Angles • 2 angles • sum of measures is 180°	
Linear Pair • 2 adjacent angles • form a straight line	
Angle Bisector a ray that divides an angle into 2 congruent angles	

Vocabulary Term and Definition	Diagram
Polygon • closed figure • 3 or more segments	
Diagonal segment that connects 2 nonconsecutive vertices.	
Convex Polygon no diagonals outside the Polygon	
Concave Polygon at least 1 diagonal outside the polygon	

Number of Polygon Sides	Name	Number of Polygon Sides	Name
3	triangle	7	heptagon
4	quadrilateral	8	octagon
5	Pentagon	9	nonagon
6	hexagon	10	decagon

Postulate 1-1

Through any two points, there is exactly one line.

Postulate 1-2

If two distinct lines intersect, then they intersect at exactly one point.

Postulate 1-3

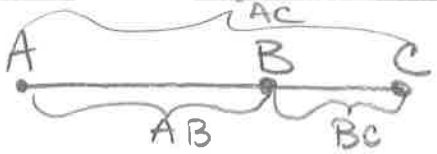
If two distinct planes intersect, then they intersect at exactly one line.

Postulate 1-4

Through any three non-colinear points, there is exactly one plane.

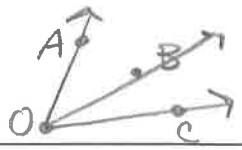
Postulate 1-6 (Segment Addition Postulate)

If three points A, B, and C are colinear and B is between A and C, then $AB + BC = AC$.



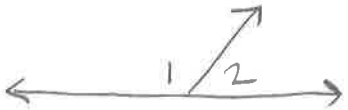
Postulate 1-8 (Angle Addition Postulate)

If point B is in the interior of $\angle AOC$, then $m\angle AOB + m\angle COB = m\angle AOC$



Postulate 1-9 (Linear Pair Postulate)

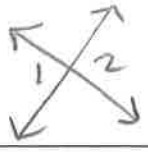
If two angles form a linear pair, then they are supplementary



$m\angle 1 + m\angle 2 = 180$

Vertical Angles Theorem

If two angles are Vertical Angles, then they are Congruent.



$\angle 1 \cong \angle 2$

Midpoint Formula	$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$
Distance Formula	$d = \sqrt{(y_2 - y_1)^2 + (x_2 - x_1)^2}$

Figure	Area Formula	Perimeter/Circumference Formula
Square	$A = s^2$	$P = 4s$
Triangle	$A = \frac{bh}{2}$	$P = s_1 + s_2 + s_3$
Rectangle	$A = bh$	$P = 2b + 2h$
Circle	$A = \pi r^2$	$C = 2\pi r$