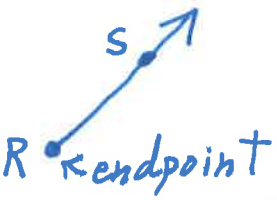
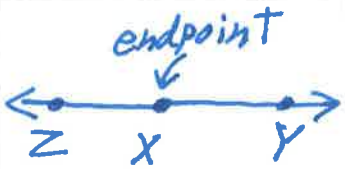
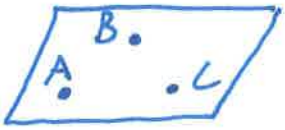
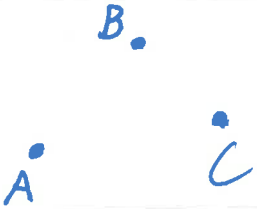
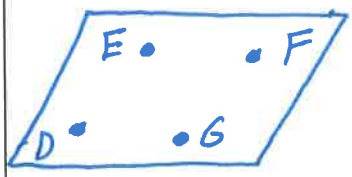
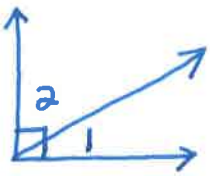
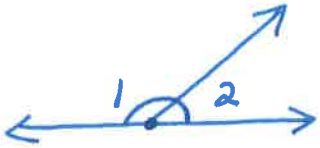
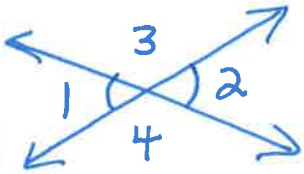
Name: - Key -

Vocabulary:

Geometry

Notes 1-1

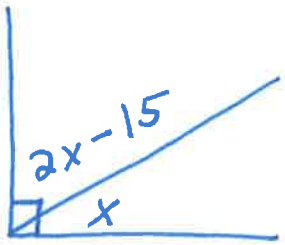
	Definition	Diagram	Notation (name)
Point 0-Dimensional	A location in space. It has no size or thickness		Point P
Line 1-Dimensional	A straight path that has no thickness and extends forever.		$\overleftrightarrow{AB}$ or $\overleftrightarrow{BA}$
Line Segment 1-D	The part of a line consisting of two endpoints and all the points between them.		$\overline{CD}$ or $\overline{DC}$
Ray 1-D	A one directional line. It starts at an endpoint and extends forever.		$\overrightarrow{RS}$
Opposite Rays 1-D	Two rays sharing a common endpoint and forming a line.		$\overrightarrow{XY}$ and $\overrightarrow{XZ}$
Plane 2-Dimensional	A flat surface that has no thickness and extends forever.		Plane ABC
Collinear	Points that lie on the same line.		Points A, B, C are collinear.
Noncollinear	Points that do not lie on the same line.		Points A, B, C are noncollinear.

Coplanar	Points that lie on the same plane		Points D, E, F, G are coplanar.
Complementary Angles	Two angles whose sum is 90°		$m\angle 1 + m\angle 2 = 90$ ↑ measure of
Supplementary Angles	Two angles whose sum is 180°		$m\angle 1 + m\angle 2 = 180$
Vertical Angles	The opposite angles formed by two intersecting lines.		$m\angle 1 = m\angle 2$ $m\angle 3 = m\angle 4$

Vertical Angles are equal in measure.

Examples:

1) Two angles are complementary. The second angle is 15 degrees less than twice the first angle. Find the measures of both angles.



$2x - 15 + x = 90$

$3x - 15 = 90$

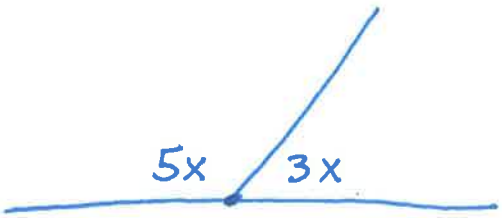
$3x = 105$

$x = 35$

$2(35) - 15 = 70 - 15 = 55°$

35°, 55°

2) Two supplementary angles are in a ratio of 3:5. Find the measures of both angles.



$5x + 3x = 180$

$8x = 180$

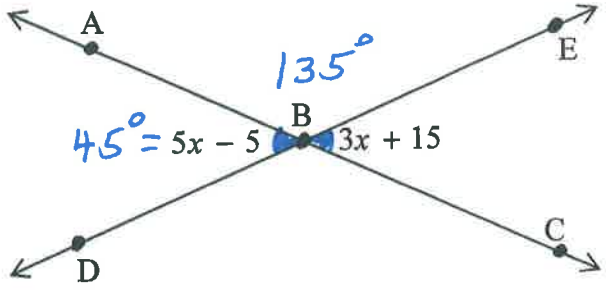
$x = 22.5$

$3(22.5) =$ 67.5°

$5(22.5) =$ 112.5°

3)a) $\angle ABD$ and $\angle EBC$ are what kind of angles?

Vertical Angles.



b) Find $m\angle ABD$

$5x - 5 = 3x + 15$

$2x = 20$

$x = 10$

$m\angle ABD = 5(10) - 5 = \boxed{45^\circ}$

c) Find $m\angle ABE$

$m\angle ABE = 180 - 45 = \boxed{135^\circ}$

4) Draw and label three collinear points A, B, and C.

A • B • C

5) Draw and label three noncollinear points D, E, and F.

• E

D • • F

6) Draw two opposite rays $\overrightarrow{EF}$ and $\overrightarrow{EG}$.