Notes Geometry 1-5
ANGLE RELATIONSHIPS (In a Plane)

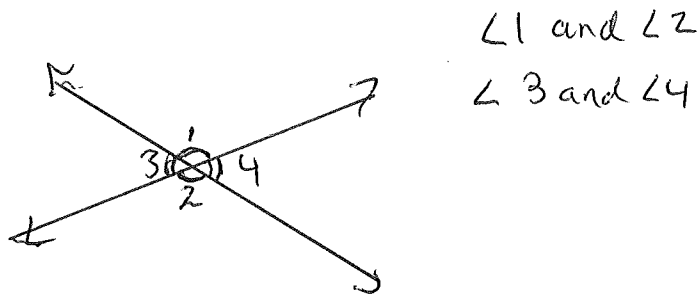*Angle Pairs:*

Name &Definition	Drawing/Examples/Problems

1. <u>Adjacent Angles</u> 2 angles that lie on the same plane, have a common vertex and side, but they do not share interior points.
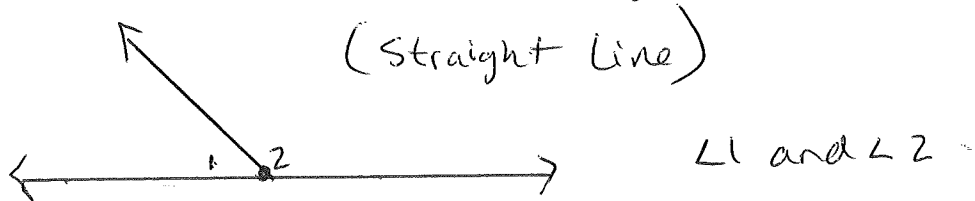
∠ABC and ∠CBD

common side BC

A

C

D

1 2.

B common vertex
B
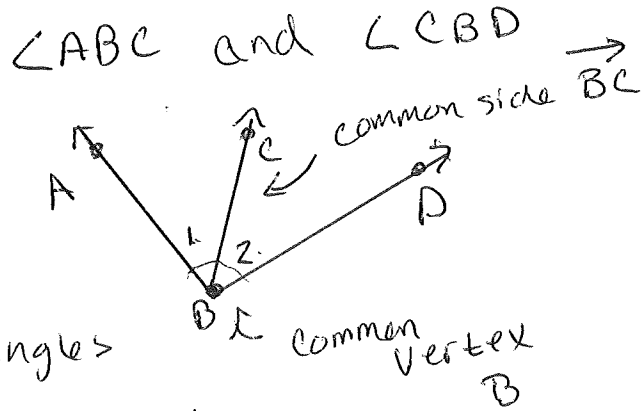
2. <u>Vertical Angles</u>

non adjacent angles formed by intersecting lines (opposite)

∠1 and ∠2
∠3 and ∠4

3 ⊗ 4
2

3. <u>Linear Pair</u>

a pair of angles whose noncommon sides form opposite rays.

(straight line)

1 2

∠1 and ∠2
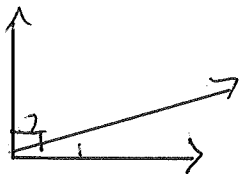
Name_____

Name & Definition   Drawing/Examples/Problems

4. <u>Complementary Angles</u> · two angles whose measures have a sum of 90°

$\angle 1 + \angle 2 = 90°$

$\angle 30° + \angle 2 = 90°$
$30° + \angle 2 = 90°$
$-30° \qquad -30°$
$\angle 2 = 60°$

* What is the measure of the complement of 30°? __60°__

* Example: Find the measures of 2 complementary angles if the difference in their measures is 12.

$\angle 1 + \angle 2 = 90$
$X + X - 12 = 90$
$2X - 12 = 90$
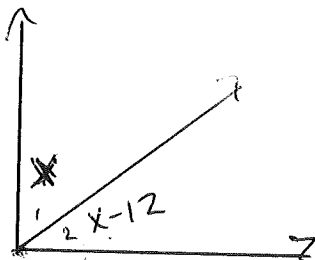$+12 \quad +12$
_____
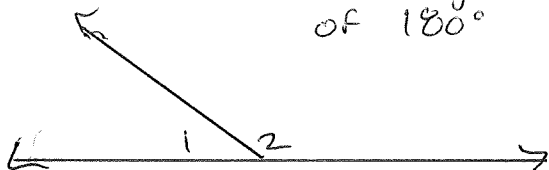$2X = 102$
$\frac{2X}{2} = \frac{102}{2}$
$X = 51$

$\angle 1 = 51°$
$51 - 12 = 39$
$\angle 2 = 39°$

5. <u>Supplementary Angles</u>

two angles whose measures have a sum of 180°

$\angle 1 + \angle 2 = 180°$
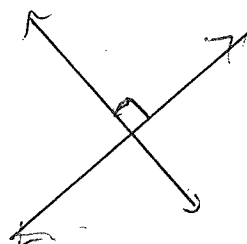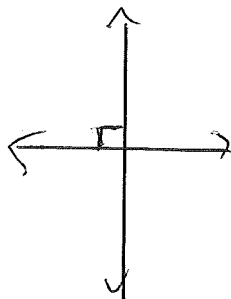
* What is the measure of the supplement of 135°? __45°__

$\angle 1 + \angle 2 = 180°$
$135 + \angle 2 = 180$
$-135 \qquad -135$
_____
$\angle 2 = 45$

Perpendicular Lines:

Intersect to form 4 __right__ angles.

Skills Practice