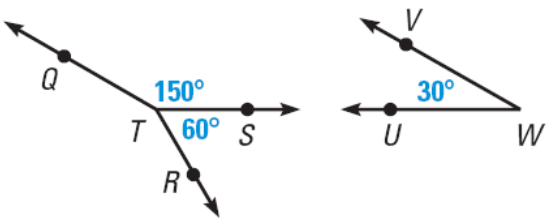
Geometry Note-Taking Guide
SECTION 1.9 – Angle Pair Relationships

Two angles are _____ if their measures add up to 90°.

Two angles are _____ if their measures add up to 180°.

Ex 1:
Name a pair of complementary angles and a pair of supplementary angles. Answers may vary.

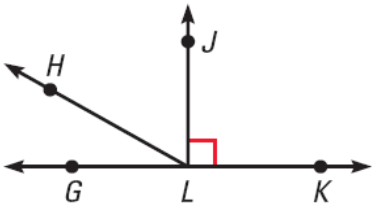
a)



Complementary Angles: _____

Supplementary Angles: _____

b)



Complementary Angles: _____

Supplementary Angles: _____

Ex 2:

a) ∠1 and ∠2 are complementary angles.
Given m∠1 = 50°, find m∠2.

b) ∠A and ∠B are supplementary angles.
Given m∠A = 110°, find m∠B.

Ex 3:
∠A and ∠B are complementary and ∠B and ∠C are supplementary.

a) If m∠A = 30º, then

m∠B = _____ and m∠C = _____.

b) If m∠C = 100º, then

m∠B = _____ and m∠A = _____.

Ex 4:

a) ∠C is a complement of ∠D. Find m∠C.

m∠C = (3x + 2)°

m∠D = (x – 4)°

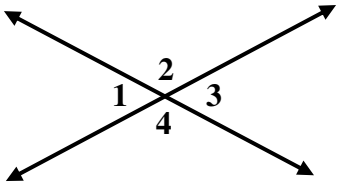
b) ∠A is a supplement of ∠B. Find m∠B.

m∠A = (2x – 20)°

m∠B = (3x + 5)°

Two angles are _____ angles if their sides are formed by two intersecting lines, but they do not share a side in common. Vertical angles are _____ in measure.

Ex:

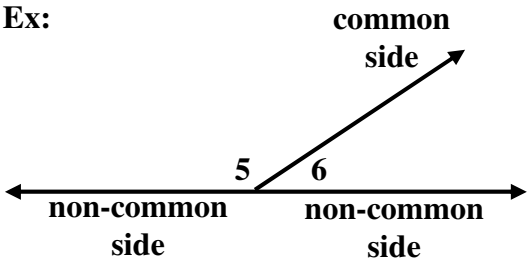


∠1 and ∠3 are vertical angles m∠1 = m∠3

∠2 and ∠4 are vertical angles m∠2 = m∠4

Two angles are a _____ if they share a side in common and their non-common sides form a straight angle. Angles that form a linear pair are supplementary or add up to _____.

Ex:



∠5 and ∠6 are a linear pair m∠5 + m∠6 = 180

Ex 5:

Use the figure at the right to answer true or false for the following questions.

a) ∠1 and ∠3 vertical angles.

b) ∠5 and ∠3 vertical angles.

c) ∠5 and ∠4 vertical angles.

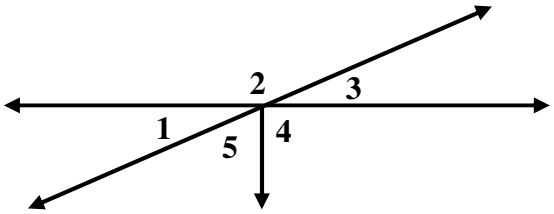
d) ∠1 and ∠2 vertical angles.

e) ∠1 and ∠2 a linear pair.

f) ∠2 and ∠3 a linear pair.

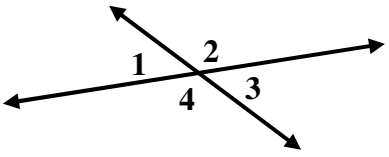
g) ∠1 and ∠4 a linear pair.

h) ∠1 and ∠5 a linear pair.



Ex 6:

a) Given m∠1 = 50°, determine m∠2, m∠3, and m∠4.



b) Determine the value of a, b, c, d, e, and f.