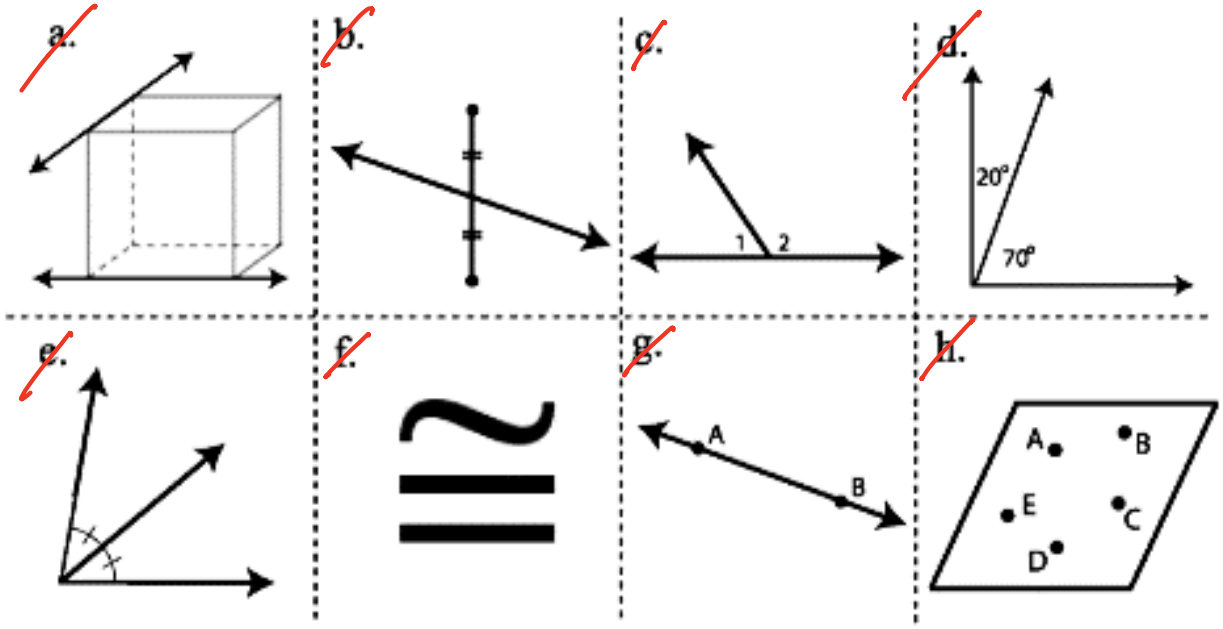
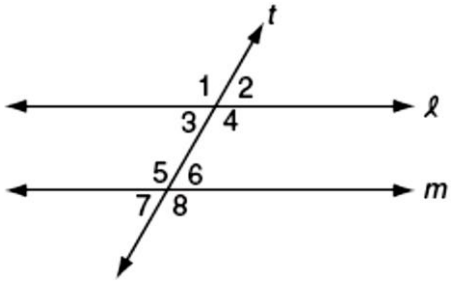
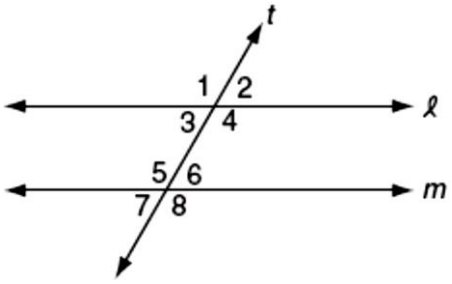
Math 3 Name: Key

Unit 6 Day 1 Notes – Intro to Geometric Properties Date:_____

Directions: Match each of the following pictures with the vocabulary listed below.



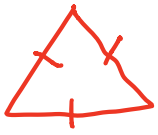
1. G Line AB
2. C Linear Pair Angles
3. H Coplanar points
4. F Congruent (Symbol)
5. A Skew lines
6. D Complementary Angles
7. B Segment bisector
8. E Angle bisector

Important Vocabulary		Picture
Vertical Angles:	Two ∠'s across from each other. They are ≅. ∠1 ≅ ∠4 ∠2 ≅ ∠3 ∠5 ≅ ∠8 ∠6 ≅ ∠7	
Corresponding Angles:	Two ∠'s on opposite sides of the parallel lines. They are ≅. ∠1 ≅ ∠5 ∠2 ≅ ∠6 ∠3 ≅ ∠7 ∠4 ≅ ∠8	
Alternate Interior Angles:	Two ∠'s inside the parallel lines on opposite sides of the tranversal. They are ≅. ∠3 ≅ ∠6 ∠4 ≅ ∠5	
Alternate Exterior Angles:	Two ∠'s outside the parallel lines on opposite sides of the tranversal. They are ≅. ∠1 ≅ ∠8 ∠2 ≅ ∠7	
Linear Pair:	Two ∠'s adjacent to each other that add up to 180°. They are supplementary. ∠1 + ∠2 = 180° ∠7 + ∠8 = 180°	
Consecutive Interior Angles:	Two ∠'s adjacent to each other inside the parallel lines on the same side of the transversal. They are supplementary. ∠3 + ∠5 = 180° ∠4 + ∠6 = 180°	
Consecutive Exterior Angles:	Two ∠'s outside the parallel lines on the same side of the transversal. They are supplementary. ∠1 + ∠7 = 180° ∠2 + ∠8 = 180°	

Directions: Draw and label three types of triangles classified by angles. All ∠'s in a △ add up to 180°

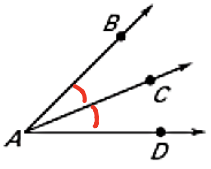
Name:	Right △	Acute △	Obtuse △
Picture:			
Definition:	△ w/ one ∠ = 90° and two ∠'s < 90°	△ w/ all ∠'s < 90°	△ w/ one ∠ > 90° and two ∠'s < 90°

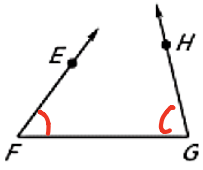
Directions: Draw and label three types of triangles classified by sides.

Name:	Isosceles △	Equilateral △	Scalene △
Picture:			
Definition:	△ w/ 2 ≅ sides	△ w/ all ≅ sides	△ w/ NO ≅ sides

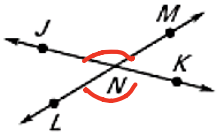
Are the indicated angles *adjacent*? (right beside each other)

1. Yes ∠*BAC* and ∠*CAD* 2. Yes ∠*EFG* and ∠*HGF* 3. NO ∠*JNM* and ∠*LNK*





Vertical ∠'s



(∠'s that add up to 90°)

∠ 1 and ∠ 2 are *complementary* angles. Given the measure of ∠1, find *m*∠2.

6. *m*∠1=52°, *m*∠2 = 38° 7. *m*∠1=76°, *m*∠2 = 14° 8. *m*∠1=19°, *m*∠2 = 71°

(∠'s that add up to 180°)

∠ 1 and ∠ 2 are *supplementary* angles. Given the measure of ∠1, find *m*∠2.

(Linear pair)

9. *m*∠1=52°, *m*∠2 = 128° 10. *m*∠1=76°, *m*∠2 = 104° 11. *m*∠1=19°, *m*∠2 = 161°

Stair Railing: A stair railing is designed as shown in the figure.
Use the angles identified in the figure to **name *two* pairs** of the indicated type of angle pair.

25. Complementary angles ∠ 1 & ∠ 2 ∠ 3 & ∠ 4

26. Supplementary angles ∠ 5 & ∠ 6 ∠ 7 & ∠ 8

28. Vertical angles ∠ 5 & ∠ 7 ∠ 8 & ∠ 6

29. Linear pair ∠ 5 & ∠ 8 ∠ 6 & ∠ 7

30. Adjacent angles ∠ 1 & ∠ 8 ∠ 4 & ∠ 6