Unit 1 Review Foundations of Geometry   Name_____Class_____
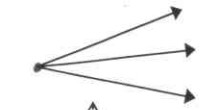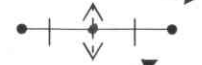
Chapter 1 Vocabulary: Match the following pictures/definitions with the correct term
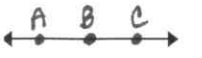
A.   Two angles in the same plane that have a common side and a common vertex but no common interior points
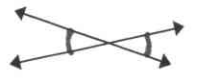
B.   A segment, line, or plane that intersects a segment at its midpoint

C.   a pair of adjacent angles whose noncommon sides are opposite rays
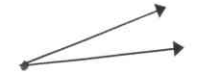
D.   Points that lie on the same line

E.   Two nonadjacent angles formed by two intersecting lines

F.   marks a place in space

G.   an angle whose measure is 180°

H.   an angle whose measure is less than 90°

I.   a measureable part of a line that consists of two endpoints and all the points between them
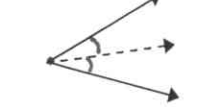
J.   a flat surface that extends in all directions forever
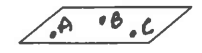
K.   part of a line consisting of one endpoint and extends indefinitely in one direction

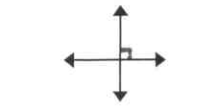L.   two angles whose measures total 180°

M.   divides an angle into two congruent angles

N.   points that lie in the same plane

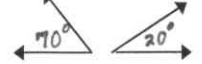O.   angle whose degree measure is greater than 90°

P.   lines that form right angles

Q.   segments with the same measure

R.   a point that divides a segment into two segments with equal measure
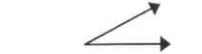
S.   two angles whose measures total 90°

T.   an angle whose measure is 90°

U.   a series of points that extends in two opposite directions without an end.

V.   Formed by two noncollinear rays with a common endpoint.

_____ 1) Collinear points

_____ 2) Adjacent angles

_____ 3) Complementary angles

_____ 4) Supplementary angles

_____ 5) Ray

_____ 6) Angle

_____ 7) Vertical angles

_____ 8) Linear pair

_____ 9) Plane

_____10) Congruent segments

_____11) Straight angle

_____12) Coplanar

_____13) Point

_____14) Obtuse angle

_____15) Line

_____16) Segment

_____17) Acute angles

_____18) Midpoint

_____19) Right angle

_____20) Angle bisector

_____21) Segment bisector

_____22) Perpendicular lines

Do the following problems on another piece of paper:

Chapter 1 Review Problems: p. 19: # 21, 23, 25
                                      p. 30: # 3, 4, 5, 9, 10
                                      p. 41: # 9, 10
                                      p. 81: #14
                                      p. 83: # 2
                                      p. 84: # 7
                                      p. 85: # 13

Write the definitions or formulas for the following:

    Chapter 1:   Distance Formula

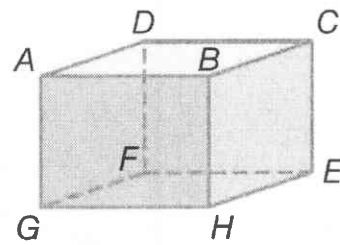   Midpoint Formula

    Chapter 3:   Parallel lines

                      Parallel plane

                      Skew lines

                      Transversal

                      Slope Formula

Chapter 3 Review Problems

1. a plane parallel to plane *ABC*

2. a segment skew to $\overline{GH}$ that contains point *D*.

3. all segments parallel to $\overline{HE}$.

Use this diagram to answer questions 1-3

Identify the transversal connecting the pair of angles. Then classify the relationship between each pair of angles as *alternate interior, alternate exterior, corresponding or consecutive interior* angles.

4. ∠6 and ∠3

5. ∠1 and ∠14

6. ∠10 and ∠11

7. ∠5 and ∠7
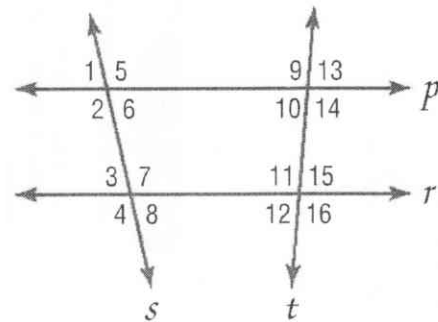
In the figure below find the measure of each angle if $m\angle 4=104°$ and $m\angle 14=118°$
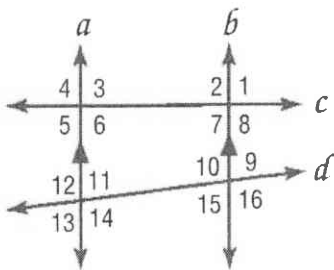
8. ∠2

9. ∠9

10. ∠10

11. ∠7

12. Find x
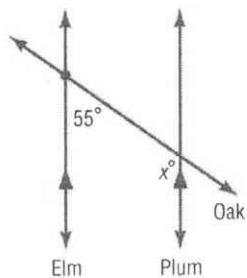
13. Find x

14. Find x so that $p \parallel q$

55°

x°

Oak

Elm   Plum

$(x-8)°$

120°

$(5x+21)°$ $(12x+6)°$
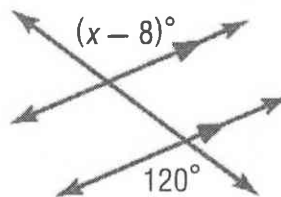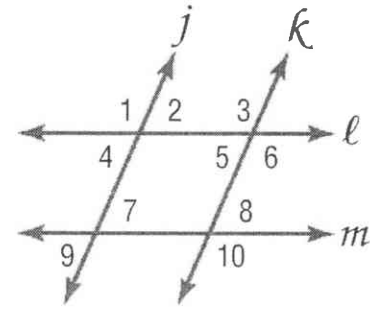
p

q
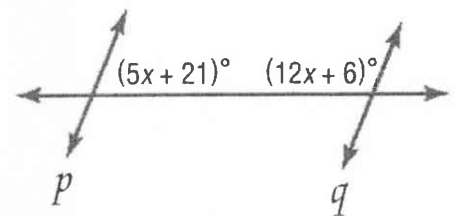
Given the following information, determine which lines, if any, are parallel. Justify your answer.

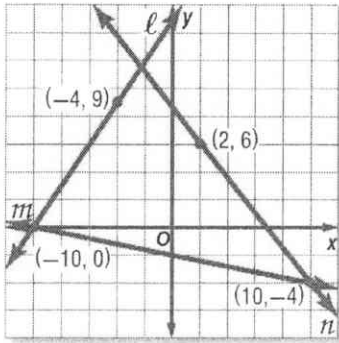15. $\angle 1 \cong \angle 3$

16. $\angle 2 \cong \angle 5$

17. $\angle 3 \cong \angle 10$

18. $m\angle 6 + m\angle 8 = 180$

19. Find the slope of line m.

20. Determine the slope of the line that contains the points $A(8,1)$ and $B(8, -6)$

Determine whether $\overleftrightarrow{AB}$ and $\overleftrightarrow{XY}$ are *parallel, perpendicular, or neither*. Graph each line to verify your answer.

21. $A(2,0), B(4, -5), X(-3, 3), Y(-5, 8)$

22. $A(5, 3), B(8,0), X(-7,2), Y(1, 10)$