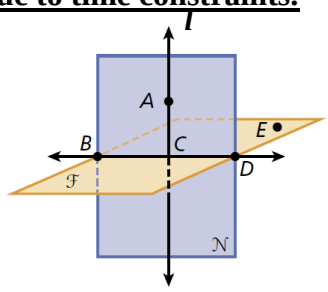
Geometry PreAP Review Sheet Rev 2013 Mathematician: _____
Test 1-2: Segments and Angles Date: _____ Period _____

Show all work. The answers are available online but only check it when you are ready to check your work. There could be a chance whereas we will not go over the review sheet, due to time constraints.

1) Use the picture at right.



a) What is another way to name line *l* ?

b) Name three points that determine plane *F*.

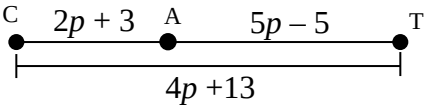
Draw the figures that represent the statement.

2) Draw plane LNM containing $\overleftrightarrow{AM}$ intersecting with $\overrightarrow{LK}$ at point K.

3) Draw a picture of ray $\overrightarrow{AB}$ intersecting parallel planes *S* and *T*.

Segment Relationships

4) Find *CT*.



5) *C* is between *A* and *E*. If $AC = 7x - 11$, $AE = 34x - 16$, $CE = 15x + 13$, find *AE*.

6) *E* is the midpoint of $\overline{KY}$, $KY = 15x + 8$ and $EY = 9x - 2$. Find *KE* and **justify**.

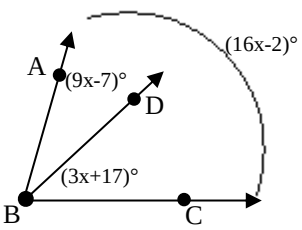
7) *E* is the midpoint of $\overline{GO}$, $GE = 3x + 10$ and $GO = 4x + 32$. Find *EO*.

Advanced Algebra with Segment Relationships

8) *C* is between *U* and *B*. Find *UC* if $UB = 2x^2 + 6x + 17$, $UC = 3x^2 - 5x$, and $BC = 3x - 3$

9) *E* is the midpoint of $\overline{TX}$. If $TE = 4y^2 - 7y + 7$ and $EX = 2y^2 + 5y - 3$, solve for *y* and find *TX*.

10) Solve. $x =$_____ ; $m\angle ABC =$_____

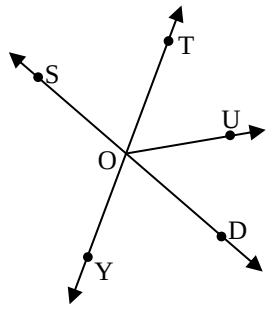


11) *D* is in the interior of $\angle ABC$. Solve for *x* if $m\angle ABD = (x^2 - 2x)°$, $m\angle DBC = (4x + 1)°$, and $m\angle ABC = (6x - 2)°$. Are either of your solutions extraneous? How do you know?

12) $\overrightarrow{QS}$ bisects $\angle PQR$. $m\angle PQS = (5x+13)°$; $m\angle PQR = (15x-6)°$. Find x and $m\angle SQR$.

13) If $\overrightarrow{YU}$ is the angle bisector of $\angle MYD$, $m\angle MYD = x^2 + 6x - 4$, and $m\angle MYU = x^2 - 2x + 10$, find $m\angle UYD$.

Use the following diagram for questions 5-7.



14) Name two pairs of angles that form a linear pair.

15) Name two pairs of angles that are adjacent but are ***not*** a linear pair.

16) Name two pairs of vertical angles.

Solve.

17) Find $m\angle SOY$ if $m\angle YOD = 12x - 28$ and $m\angle SOY = 16x - 2$.

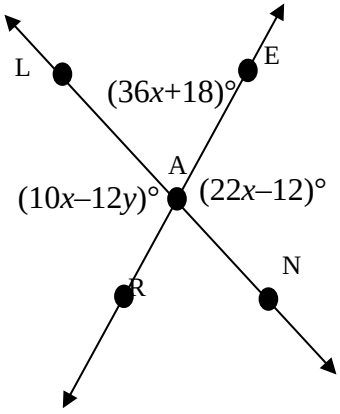
18) If $m\angle TOU = 9x - 20$, $m\angle UOD = 4x + 15$, and $m\angle TOD = 12x + 5$, what is x? Is $\overrightarrow{OU}$ the bisector of $\angle TOD$?

19) An angle plus two times its supplement is 220°. Find the angle.

20) An angle exceeds its complement by 8°. Find the angle.

21) An angle is 70° smaller than its supplement. Find the two angles.

Use the diagram on the right to solve question 22.



22) x = _____; y = _____; $m\angle NAE$ = _____; $m\angle RAN$ = _____