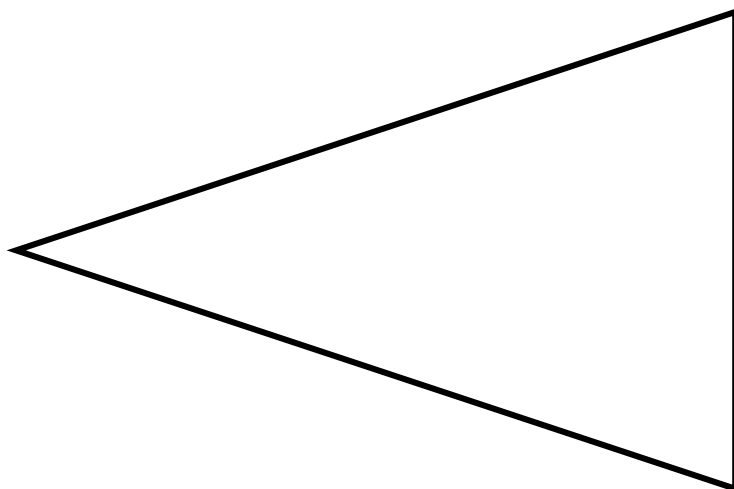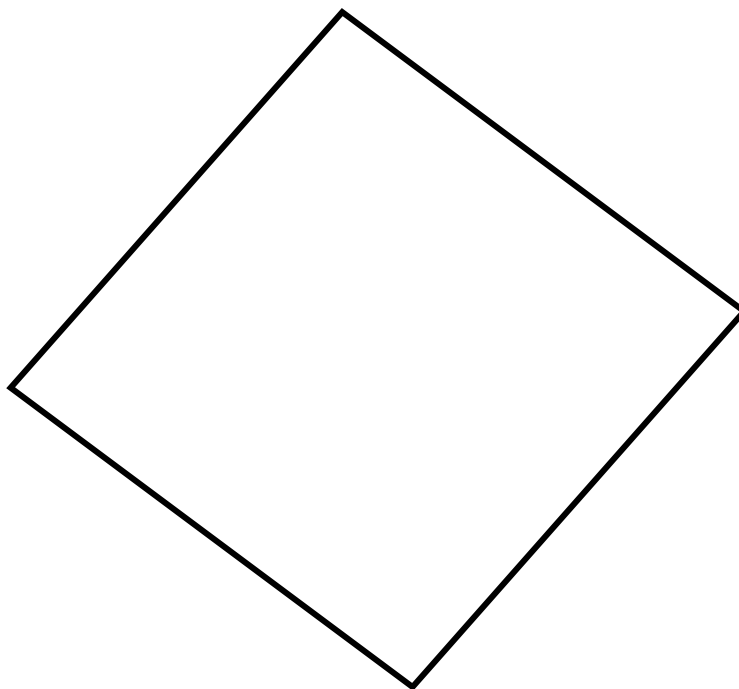Name:_____Date:_____Period:____

Unit 1 Segment 2: *Bisector Constructions*

Perform segment bisector constructions on all three sides of the triangle

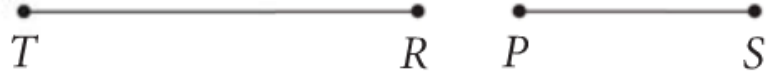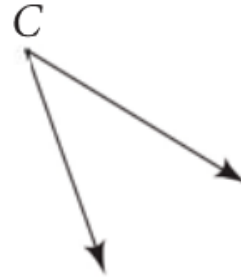Perform angle bisector constructions on all four angles of the rhombus

1. Construct $\overline{XY}$ congruent to $\overline{AB}$.

A •————————————————————————• B

2. Construct $\overline{VW}$ so that $VW = 2AB$.

T •————————————————————• R P •——————————• S

3. Construct $\overline{DE}$ so that $DE = TR + PS$.
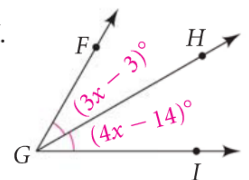
C

4. Construct $\overline{QJ}$ so that $QJ = TR - PS$.

5. Construct $\angle D$ so that $\angle D \cong \angle C$.   **6.** Construct $\angle F$ so that $m\angle F = 2m\angle C$.

9. Algebra $\overrightarrow{GH}$ bisects $\angle FGI$.
   a. Solve for x and find $m\angle FGH$.
   b. Find $m\angle HGI$.
   c. Find $m\angle FGI$.

$(3x - 3)°$

$(4x - 14)°$

7. Construct the perpendicular bisector of $\overline{AB}$.

$\overrightarrow{BX}$ **bisects** $\angle ABC$**. Solve for x and find $m\angle ABC$.**

10. $m\angle ABX = 5x, m\angle XBC = 3x + 10$

13. Draw acute $\angle PQR$. Then construct its bisector.