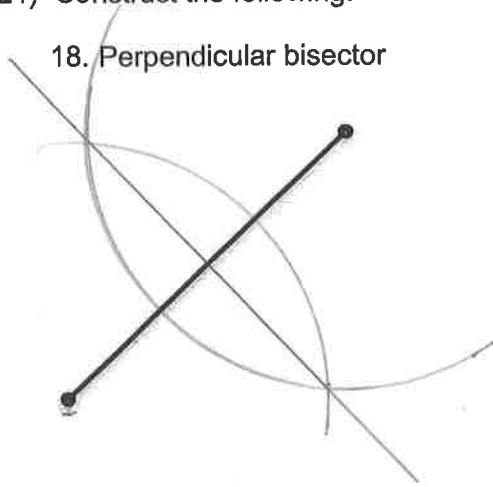


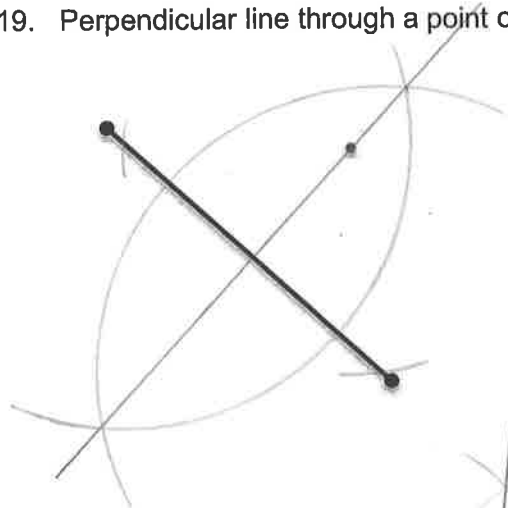
Semester 1 Re-Engagement Constructions

18-21) Construct the following:

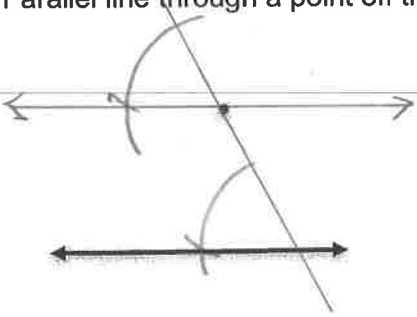
18. Perpendicular bisector



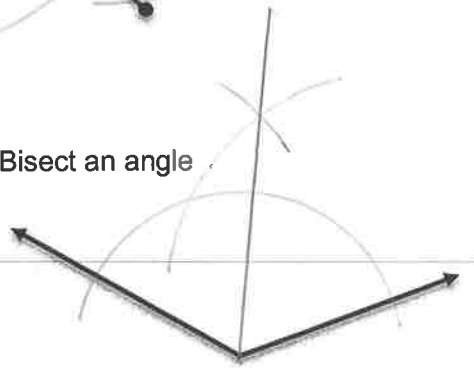
19. Perpendicular line through a point off the line



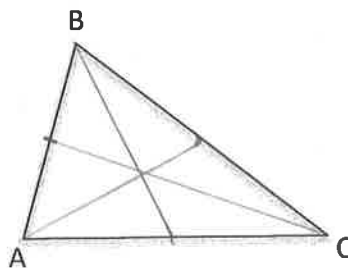
20. Parallel line through a point off the line



21. Bisect an angle

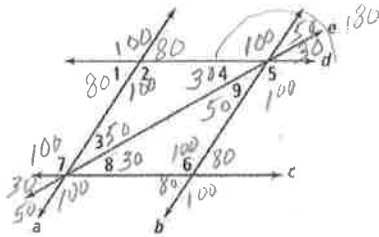


22. Construct the three medians of the triangle and show that they are concurrent.



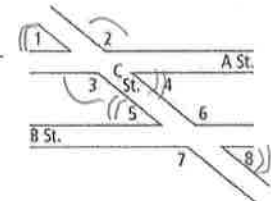
Semester 1 Re-Engagement Parallel & Perpendicular Lines and Transversals

23. Give that $d \parallel c$, $a \parallel b$, $m\angle 4 = 30^\circ$ and $m\angle 7 = 100^\circ$, Find the measure of all other designated angles.



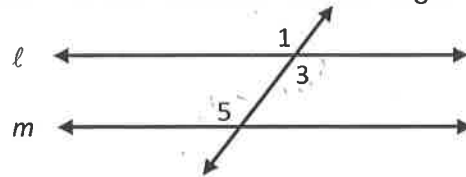
- $m\angle 1 = 80^\circ$ $m\angle 5 = 100^\circ$
 $m\angle 2 = 100^\circ$ $m\angle 6 = 100^\circ$
 $m\angle 3 = 50^\circ$ $m\angle 8 = 30^\circ$
 $m\angle 9 = 50^\circ$

24. Streets A & B are parallel. What is the sum of $\angle 2$, $\angle 3$, $\angle 5$, and $\angle 8$? 360



25. Arrange the given statements & reasons to complete the proof of the Alternate Interior Angle Theorem.

- G: $l \parallel m$
P: $\angle 3 \cong \angle 5$



Statements	Reasons
1. $l \parallel m$	1. Given
2. $\angle 1 \cong \angle 3$	2. Vertical \angle 's Theorem
3. $\angle 1 \cong \angle 5$	3. Corr \angle 's Post.
4. $\angle 3 \cong \angle 5$	4. Trans. Prop.

Transitive Property $\angle 3 \cong \angle 5$
 Corresponding Angles Postulate
 $l \parallel m$ Vertical Angles Theorem
 Given $\angle 1 \cong \angle 3$ $\angle 1 \cong \angle 5$

26. Draw and label a diagram that demonstrates the given types of angles.

a) vertical angles



b) linear pair



c) corresponding angles



d) alternate interior angles



e) alternate exterior angles



f) same-side interior angles (consecutive)



27. Draw and label a single diagram for which all of the following four statements are true.

i) $\angle 1$ & $\angle 2$ are corresponding, and congruent

ii) $\angle 2$ & $\angle 3$ are corresponding, but not congruent

iii) $\angle 3$ & $\angle 4$ are alternate interior, and congruent

iv) $\angle 4$ & $\angle 5$ are vertical

