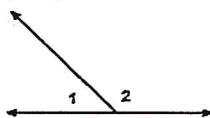


Given: $\angle 1$ and $\angle 2$ are supplementary

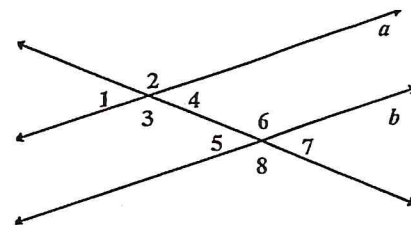
9. $m\angle 2 = 145^\circ$

Prove: $m\angle 1 = 35^\circ$



Unit 2 – Properties of Parallel and Perpendicular Lines

Use the following diagram for questions 9 – 21. $a \parallel b$.



10. Name all the pairs of vertical angles.

11. Name all the pairs of same-side interior angles.

12. Name all the alternate interior angles.

13. Name all the corresponding angles.

14. Name all same-side exterior angles.

15. Name all alternate exterior angles.

16. Name 4 linear pairs.

17. Which of the above types of angles are congruent? Which of the above type are supplementary?

18. Complete the following proof:

Given: $a \parallel b$

Prove: $m\angle 1 + m\angle 8 = 180^\circ$

Statements	Justifications
1.	1.
2. $m\angle 5 + m\angle 8 = 180^\circ$	2.
3.	3. Corresponding angles of parallel lines are congruent
4.	4.

19. Complete the following proof:

Given: $a \parallel b$

Prove: $m\angle 3 \cong m\angle 6$

Statements	Justifications

20. If $m\angle 1 = 7x - 20$ and $m\angle 5 = 3x + 8$, solve for x and find $m\angle 1$ and $m\angle 5$.