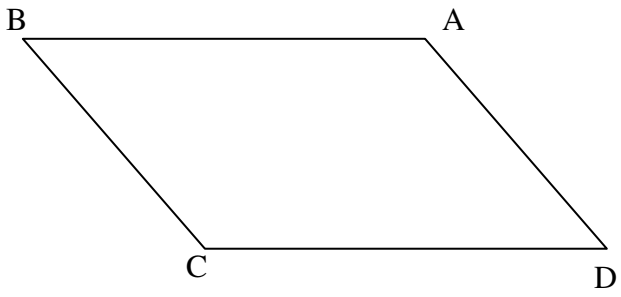
Parallelograms

Answer the following questions as directed.

Using parallelogram ABCD:



1. Name two pairs of opposite sides.

2. Name both pairs of opposite angles.

3. Tell what angles are consecutive angles to ∠A.

4. Tell what angles are consecutive angles to ∠B.

5. Label on the diagram the fact that opposite sides of a parallelogram are congruent.

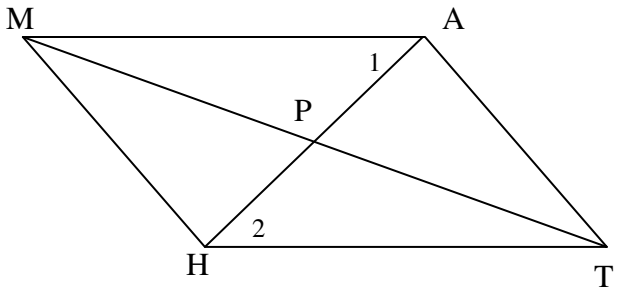
6. Label on the diagram the fact that opposite angles of a parallelogram are congruent.

7. If m∠A = 135, find m∠B, m∠C and m∠D.

8. If AB = 10 and BC = 5, find CD and find AD.

Using parallelogram MATH:

9. Name the two diagonals in the parallelogram.



10. If the diagonals cut each other in half, the diagonals are said to _____ each other.

11. Since we know that $\overline{MA} \parallel \overline{HT}$, we can think of $\overline{HA}$ as a transversal that connects the two parallel lines. If this is the case, tell the relationship between $\angle 1$ and $\angle 2$.

12. If $m\angle 1 = 35$, what is $m\angle 2$?

13. If $MA = 5x - 3$ and $HT = 2x + 9$, find x and MA.

14. If $m\angle AMH = 60$, find $m\angle MHT$.

15. Label the diagram to show that the diagonals of a parallelogram bisect each other.