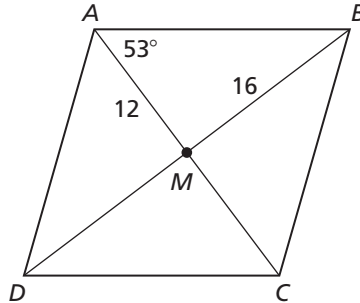## 7.4 Practice B

In Exercises 1 and 2, decide whether quadrilateral *JKLM* is a rectangle, a rhombus, or a square. Give all names that apply. Explain your reasoning.

1. $J(3, 5), K(7, 6), L(6, 2), M(2, 1)$

2. $J(-4, -1), K(-1, 5), L(5, 2), M(2, -4)$

In Exercises 3–7, the diagonals of rhombus *ABCD* intersect at *M*. Given that $m\angle MAB = 53°$, $MB = 16$, and $AM = 12$, find the indicated measure.

3. $m\angle AMD$

4. $m\angle ADM$
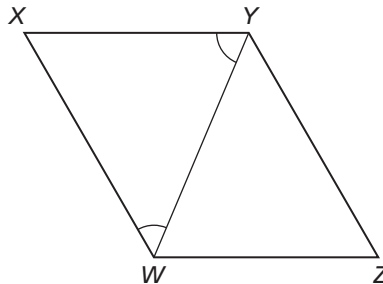
5. $m\angle ACD$

6. DM

7. AC

8. Find the point of intersection of the diagonals of the rhombus with vertices $(-1, 2), (3, 4), (5, 8),$ and $(1, 6)$.

9. Use the figure to write a two-column proof.

    Given: *WXYZ* is a parallelogram.
      $\angle XWY \cong \angle XYW$

    Prove: *WXYZ* is a rhombus.

10. Your friend claims that you can transform every rhombus into a square using a similarity transformation. Is your friend correct? Explain your reasoning.

11. A quadrilateral has four congruent angles. Is the quadrilateral a parallelogram? Explain your reasoning.

12. A quadrilateral has two consecutive right angles. If the quadrilateral is not a rectangle, can it still be a parallelogram? Explain your reasoning.

13. Will a diagonal of a rectangle ever divide the rectangle into two isosceles triangles? Explain your reasoning.