## Chapter Test C

For use after Chapter 5

## In Exercises 1–3, use the diagram and the given information.

 $\overleftrightarrow{BM}$  is a perpendicular bisector of  $\triangle ABC$  and  $\triangle ACD$  is isosceles.

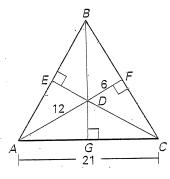
- **1**. Find *AB*.
- 2. Find *MC*.
- 3. Find CD.

In Exercises 4–6, complete the statement with the word *inside*, on, or outside.

- 4. In an acute triangle, the altitudes intersect \_\_?\_ the triangle.
- 5. In a right triangle, the altitudes intersect ? the triangle.
- **6.** In an obtuse triangle, the altitudes intersect \_\_? the triangle.

In Exercises 7 and 8, use the diagram to indicate measure.

- 7. The perpendicular bisectors of  $\triangle ABC$  meet at point D. Find BD.
- **8.** Find *DC*.



 $4 \dashv M$ 

## Answers

- 1.
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- cuigh a
- 5.
- Ψ.\_\_\_\_\_
- .
- 8. .\_\_\_\_\_
- 9. See left.
- 10. See left.
- 11. \_\_\_\_\_
- 12.
- 13.\_\_\_\_
- 14.
- 15.\_\_\_\_\_

Draw the given figure.

- **9.** An acute triangle with 3 medians
- 10. An obtuse triangle with perpendicular bisectors

In Exercises 11–15, complete the statement with the word always, sometimes, or never.

- 11. The perpendicular bisectors of a right triangle will \_ ? \_ intersect outside the figure.
- **12.** The perimeter of the triangle formed by the midsegments is \_\_?\_ one third of the original triangle's perimeter.
- **13.** The medians of an obtuse triangle will \_\_?\_ intersect inside the triangle.
- **14.** The perpendicular bisectors of an obtuse triangle will \_ ? \_ intersect on the triangle.
- **15.** The midsegment of a triangle will \_\_?\_ be parallel to two sides of the triangle.