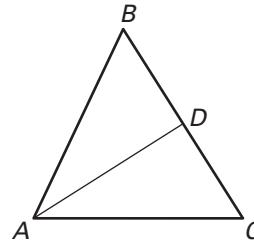


Practice A

For use with pages 279–285

Use the diagram shown and the given information to decide in each case whether \overline{AD} is a *perpendicular bisector*, an *angle bisector*, a *median*, or an *altitude* of $\triangle ABC$.

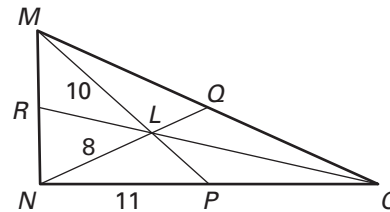
1. $\overline{DB} \cong \overline{DC}$
2. $\angle BAD \cong \angle CAD$
3. $\overline{DB} \cong \overline{DC}$ and $\overline{AD} \perp \overline{BC}$
4. $\overline{AD} \perp \overline{BC}$
5. $\triangle BAD \cong \triangle CAD$



Use the figure shown and the given information.

L is the centroid of $\triangle MNO$, $NP = 11$, $ML = 10$, and $NL = 8$.

6. Find the length of \overline{PO} .
7. Find the length of \overline{MP} .
8. Find the length of \overline{LQ} .
9. Find the length of \overline{NQ} .
10. Find the perimeter of $\triangle NLP$.

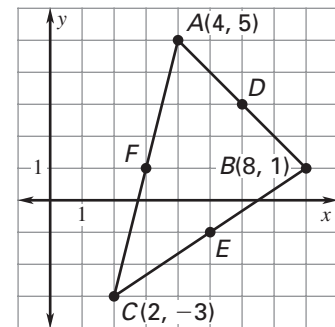


Decide whether the statement is *true* or *false*. Illustrate your answer with a sketch.

11. The median of a triangle could also be the perpendicular bisector.
12. The altitude of a triangle could also be the perpendicular bisector.
13. The medians of a triangle always intersect inside the triangle.
14. The altitudes of a triangle always intersect inside the triangle.

Use the graph shown.

15. Find the coordinates of D , the midpoint of \overline{AB} .
16. Find the length of the median \overline{CD} .
17. Find the coordinates of E , the midpoint of \overline{BC} .
18. Find the length of the median \overline{AE} .



Complete the constructions described.

19. Draw a large obtuse, scalene triangle $\triangle ABC$. Construct the altitude from the obtuse angle.
20. Draw a large right, scalene triangle $\triangle ABC$. Construct the orthocenter.