

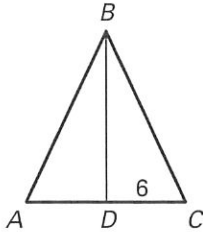
LESSON
5.4

Practice A

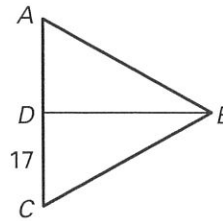
For use with the lesson "Use Medians and Altitudes"

\overline{BD} is a median of $\triangle ABC$. Find the length of \overline{AD} .

1.

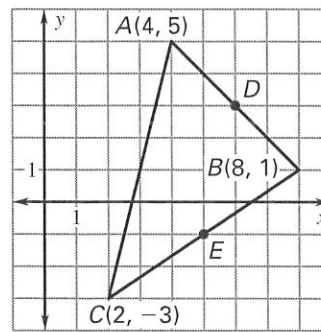


2.



Use the graph shown.

3. Find the coordinates of D , the midpoint of \overline{AB} .
4. Find the length of the median \overline{CD} .
5. Find the coordinates of E , the midpoint of \overline{BC} .
6. Find the length of the median \overline{AE} .

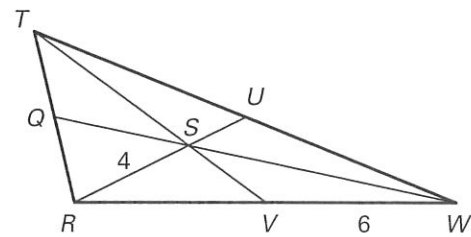


Copy and complete the statement for $\triangle MNP$ with medians \overline{MT} , \overline{NR} , and \overline{PS} , and centroid Q .

7. $QR = \underline{\quad ? \quad} NR$
8. $MQ = \underline{\quad ? \quad} MT$

S is the centroid of $\triangle RTW$, $RS = 4$, $VW = 6$, and $TV = 9$. Find the length of the segment.

9. \overline{RV}
10. \overline{SU}
11. \overline{RU}
12. \overline{RW}
13. \overline{TS}
14. \overline{SV}



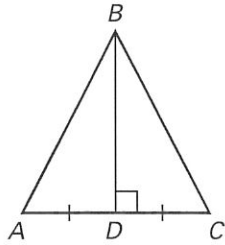
LESSON
5.4

Practice A *continued*
For use with the lesson "Use Medians and Altitudes"

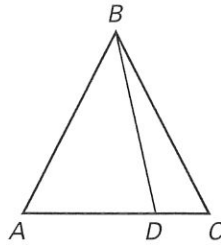
LESSON 5.4

Is \overline{BD} a median of $\triangle ABC$? Is \overline{BD} an altitude? a perpendicular bisector?

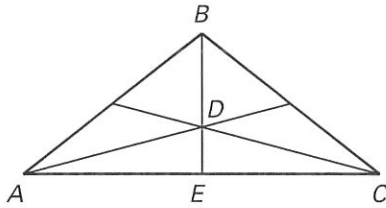
15.



16.



17. **Error Analysis** D is the centroid of $\triangle ABC$. Your friend wants to find DE . The median \overline{BE} has length 24. Find and correct the error. *Explain* your reasoning.



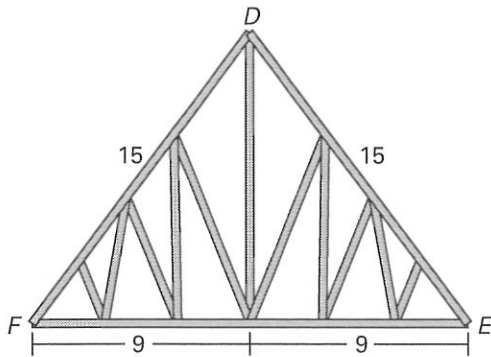
$$DE = \frac{2}{3}BE$$

$$DE = \frac{2}{3}(24)$$

$$DE = 16$$

In Exercises 18 and 19, use the following information.

Roof Trusses Some roofs are built using several triangular wooden trusses.



- 18. Find the altitude (height) of the truss.
- 19. How far down from D is the centroid of $\triangle DEF$?