

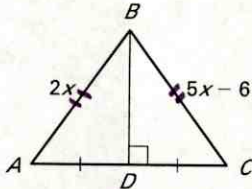
LESSON
5.2

Practice

For use with pages 303-309

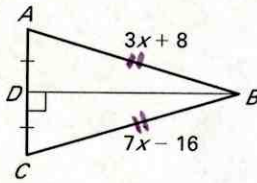
Find the length of \overline{AB} .

1.



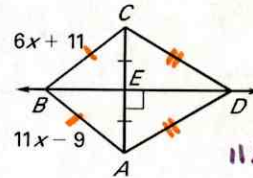
$AB = BC$ \perp bis. Thm.
 $2x = 5x - 6$
 $-3x = -6$
 $x = 2$
 $AB = 2(2)$
 $AB = 4$

2.



$7x - 16 = 3x + 8$
 $4x - 16 = 8$
 $4x = 24$
 $x = 6$
 $AB = 2(6) + 8$
 $AB = 20$

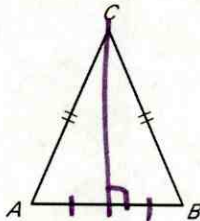
3.



$11x - 9 = 6x + 11$
 $5x = 20$
 $x = 4$
 $AB = 11(4) - 9$
 $AB = 35$

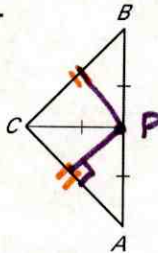
Tell whether the information in the diagram allows you to conclude that C is on the perpendicular bisector of \overline{AB} .

4.



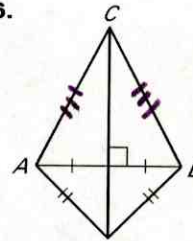
yes

5.



NO

6.



yes

Use the diagram. \overline{EH} is the perpendicular bisector of \overline{DF} . Find the indicated measure.

7. Find EF .

$7(5) + 9$
 $= 44$

8. Find DE .

44

9. Find FG .

$7(4) + 8$
 36

10. Find DG .

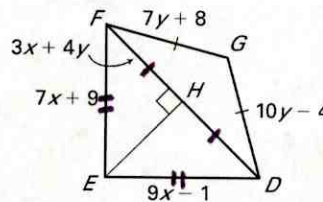
36

11. Find FH .

$3(5) + 4(4)$
 $15 + 16$
 31

12. Find DF .

$DF = 2(FH)$
 $= 2(31)$
 $= 62$



$EF = ED$

$7x + 9 = 9x - 1$
 $-2x + 9 = -1$
 $-9 \quad -9$
 $-2x = -10$
 $x = 5$

$FG = GD$

$7y + 8 = 10y - 4$
 $-3y + 8 = -4$
 $-3y = -12$
 $y = 4$

Name _____

Date _____

LESSON 5.2 Practice *continued*
For use with pages 303-309

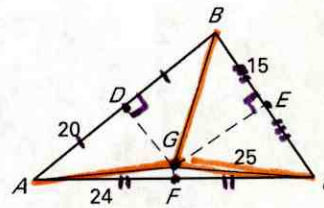
In the diagram, the perpendicular bisectors of $\triangle ABC$ meet at point G and are shown dashed. Find the indicated measure.

13. Find AG .

25

14. Find BD .

20



15. Find CF .

24

16. Find BG .

25

17. Find CE .

15

18. Find AC .

2(24)
= 48

Draw \overline{AB} with the given length. Construct the perpendicular bisector and choose point C on the perpendicular bisector so that the distance between C and \overline{AB} is 1 inch. Measure AC and BC .

19. $AB = 0.5$ inch

20. $AB = 1$ inch

21. $AB = 2$ inches