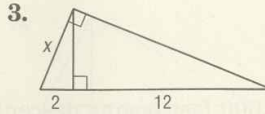
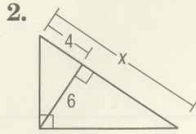


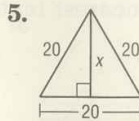
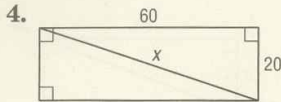
1. Find the geometric mean between  $2\sqrt{5}$  and  $5\sqrt{5}$ .

1. \_\_\_\_\_

For Questions 2–5, find  $x$ .



2. \_\_\_\_\_

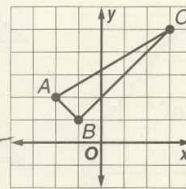


3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. Determine whether  $\triangle ABC$  is a right triangle. Explain your answer.



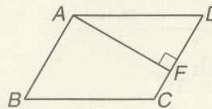
6. \_\_\_\_\_

7. Find  $x$ .



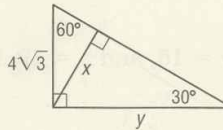
7. \_\_\_\_\_

8. In parallelogram  $ABCD$ ,  $AD = 4$  and  $m\angle D = 60$ . Find  $AF$ .



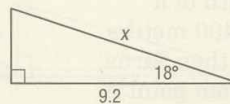
8. \_\_\_\_\_

9. Find  $x$  and  $y$ .



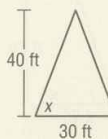
9. \_\_\_\_\_

10. Find  $x$  to the nearest tenth.



10. \_\_\_\_\_

11. An A-frame house is 40 feet high and 30 feet wide. Find the measure of the angle, to the nearest tenth of a degree, that the roof makes with the floor.



11. \_\_\_\_\_

12. A 30-foot tree casts a 12-foot shadow. Find the angle of elevation of the sun to the nearest tenth of a degree.

12. \_\_\_\_\_

# 7 Chapter 7 Test, Form 2C (continued)

13. A boat is 1000 meters from a cliff. If the angle of depression from the top of the cliff to the boat is  $15^\circ$ , how tall is the cliff? Round your answer to the nearest tenth.

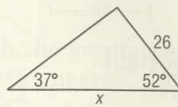


13. \_\_\_\_\_

14. A plane flying at an altitude of 10,000 feet begins descending when the end of the runway is below a point 50,000 feet away. Find the angle of descent (depression) to the nearest tenth of a degree.

14. \_\_\_\_\_

15. Find  $x$  to the nearest tenth.



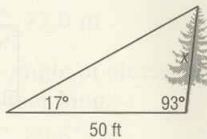
15. \_\_\_\_\_

16. Find  $x$  to the nearest tenth of a degree.



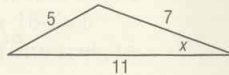
16. \_\_\_\_\_

17. A tree grew at a  $3^\circ$  slant from the vertical. At a point 50 feet from the tree, the angle of elevation to the top of the tree is  $17^\circ$ . Find the length of the tree to the nearest tenth of a foot.



17. \_\_\_\_\_

18. Find  $x$  to the nearest tenth of a degree.

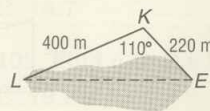


18. \_\_\_\_\_

19. In  $\triangle XYZ$ ,  $m\angle X = 152$ ,  $y = 15$ , and  $z = 19$ . Find  $x$  to the nearest tenth.

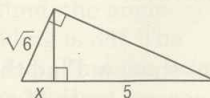
19. \_\_\_\_\_

20. To approximate the length of a pond, a surveyor walks 400 meters from point  $L$  to point  $K$ , then turns and walks 220 meters from point  $K$  to point  $E$ . If  $m\angle LKE = 110$ , find the length  $LE$  of the pond to the nearest tenth of a meter.



20. \_\_\_\_\_

**Bonus** Find  $x$ .



**B:** \_\_\_\_\_

# Chapter 7 Assessment Answer Key

Form 2C

Page 399

1.  $\sqrt{50}$  or  $5\sqrt{2}$

2. 13

3.  $\sqrt{28}$  or  $2\sqrt{7}$

4.  $\sqrt{4000}$  or  $20\sqrt{10}$

5.  $\sqrt{300}$  or  $10\sqrt{3}$

6. yes,  $(\sqrt{2})^2 + (\sqrt{32})^2 = (\sqrt{34})^2$

7.  $11\sqrt{2}$

8.  $2\sqrt{3}$

9.  $x = 6, y = 12$

10. 9.7

11. 69.4

12. 68.2

Page 400

13. 267.9

14. 11.3

15. 43.2

16. 10.5

17. 15.6

18. 19.7

19. 33.0

20. 518.3

B: 1