

Chapter 5

1. $x = 30$ 2. $x = 7.5$ 3. $\overline{AC}, \overline{AB}, \overline{BC}$ 4. $\angle F, \angle G, \angle H$

5. a) Yes b) No c) No

Chapter 6

1. Square 2. Rectangle 3. Rhombus 4. Kite

5. $\angle 3 = 122^\circ$ 6. $\angle 1 \& 2 = 57^\circ, \angle 3 = 123^\circ$ 7. $\angle 1 = 56^\circ, \angle 2 \& 3 = 124^\circ$

8. $\angle 1 = 131^\circ, \angle 2 = 82^\circ$ 9. $\angle 1 \& 2 = 75^\circ, \angle 3 = 105^\circ$ 10. $\angle 1, 2, 4 \& 5 = 68^\circ, \angle 3 = 44^\circ$

11. $\angle 1 \& 4 = 44^\circ, \angle 2 = 40^\circ, \angle 3 = 70^\circ$ 12. $\angle 1 = 90^\circ, \angle 2 \& 5 = 48^\circ, \angle 3 \& 4 = 42^\circ$

13. $\angle 1 = 6^\circ, \angle 2 = 90^\circ, \angle 3 = 84^\circ, \angle 4 = 49^\circ$ 14. $a = 42$ 15. $x = 3, y = 10$

16. $m = 5, p = 4.5$

Chapter 7

1. $x = 65.6$ 2. $a = 8.1, b = 183.7$ 3. a) 20.6 in b) 186.7 mi

4. 18.8 in (if rounded only at the end); 19.2 in if round to 1.6 feet then convert to inches.

5. 1.4 in 6. $AB = 16.8$ $KR = 12.5$ 7. 27.78 ft 8. 2 km

9. a) 11.67 b) 37.5 c) 17.28 d) 19.2 e) 13.5 f) 13.64
g) 137.45 h) $x = 15.43, y = 11.67$

Chapter 8

1. a) 55.22 b) 44 c) $4\sqrt{21}$ 2. a) 60 b) 137

3. a) Acute b) Right c) Obtuse d) Obtuse 4. 23.0 ft

5. $x = 14, y = 7\sqrt{3}$ 6. $x = 9, y = 9\sqrt{2}$ 7. $x = 12\sqrt{3}, y = 12$ 8. $x = 14\sqrt{2}, y = 14\sqrt{2}$

9. $x = \frac{11\sqrt{3}}{3}, y = \frac{22\sqrt{3}}{3}$ 10. 6.89 11. 30.43 12. 7.79 13. 70.12

14. 43.56 15. 55.64 16. 49.7° 17. 159.2 ft 18. 171.4 ft