p. 145 #1-3, 6, 10-12

1. Scalene
2. a) Scalene
   b) Isosceles
   c) Equilateral
   d) Scalene
   e) Scalene
   f) Isosceles
3. a) Right
   b) Obtuse
   c) Right
   d) Acute
   e) Right
   f) Acute

6. $x = 7;\ y = 63$

10. If $RS = RT \Rightarrow x + 7 = 3x + 5 \Rightarrow x = 1 \Rightarrow RS = RT = ST = 8$

11. $\overline{VY}$

12. $x + 3 + 3x + 2 + 2x + 3 = 20 \Rightarrow x = 2$
    $AB = 5;\ AC = 8;\ BC = 7$

p. 298 #1, 2, 4–7, 9, 10, 15

1. 70°
2. $\angle 2 = 50; \angle 3 = 60; \angle 4 = 120; \angle 5 = 70; \angle 6 = 110$
4. $\angle M = 115°$ — this problem is important to understand and be able to do
5. 48; 60; 72
6. $m\angle O = 48°$
7. $AY = 9$
9. a) A
   b) A
   c) N
   d) A
   e) N
10. 90°
15. 110°

p. 145 #13, 14

13. 4
14. $m\angle 2 = 60°$

p. 298 #16, 18

16. $m\angle D = 117.5°$ or $m\angle D = 92.5°$

18. $m\angle PST = 105°$

p. 120 #1, 2

1. a) SAS: $\overline{GH} \cong \overline{KO}$ ASA: $\angle J \cong \angle M$
   b) SAS: $\overline{PS} \cong \overline{TR}$ ASA: $\angle PVS \cong \angle TVR$
   c) SSS: $\overline{BZ} \cong \overline{AX}$ SAS: $\angle BWZ \cong \angle AYX$

2. a) SAS
   b) None
   c) None
   d) ASA

p. 120 #6, 8, 10, 13

6.

8.

10. $x = 5.5$ therefore, yes by SSS

13.

p. 127 #1, 2, 4, 5, 8

1.

2.

4.

5.

8. $x = 5/3$, $y = 100$, $z = 8100$

p. 127 #12

12. $m\angle GOH = 67$
    $m\angle GHO = 25$
    $GH = 13.5$

p. 135 #1, 6, 8

1. a) Median
   b) Altitude
   c) Altitude
   d) both

6. $SW = 54$
   $WV = 54$
   $ST = 52$

8.

p. 139 #1–3

1.

2.

3.

p. 162 #1, 2, 7, 15–17

1. a) S
   b) A
   c) N
   d) N
   e) N

2.

7. a) 28; 60
   b) 114

15. $x = -5$ or $x = 11$
16. $CR = 2$
17. 60

p. 321 #7–11, 19, 20

7. 45
8. 50; 50
9. 50
10. 6; 80; 40
11. 20
19. a) 32.5
    b) 122.5
    c) 25
20. 115