pp. 274-275 (#5, 7, 8-10, 14, 16, 21-24, 26, 30)

5. *Sample answer:* adjacent: $\angle FGH$ and $\angle HGJ$, $\angle FGK$ and $\angle KGJ$; vertical: $\angle FGH$ and $\angle JGK$, $\angle FGK$ and $\angle JGH$

7. $\angle ACB$ and $\angle BCD$ are adjacent angles, not vertical angles.

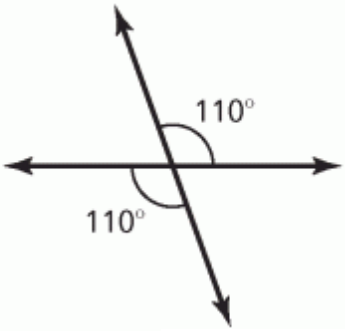
8. adjacent; 55

9. vertical; 128

10. adjacent; 63

14.

16.



21. never

22. always

23. sometimes

24. always

26. See *Taking Math Deeper.*

30. B

pp. 280-281 (#6-11, 15, 19-20, 24, 31)

6. neither

7. complementary

8. complementary

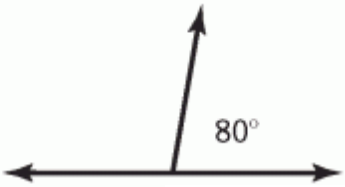
9. supplementary

10. supplementary

11. neither

15. $\angle 1 = 130°$, $\angle 2 = 50°$, $\angle 3 = 130°$

19.



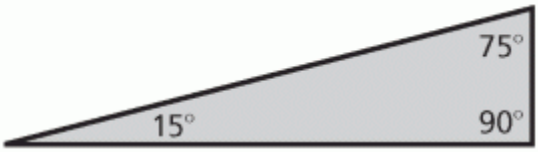
20.

24. yes; *Sample answer:* $\angle LMQ$ is a straight angle. By removing $\angle NMP$, the remaining two angles ($\angle LMN$ and $\angle PMQ$) have a sum of 90°.

31. B

pp. 286-287 (#6-12,14-18)

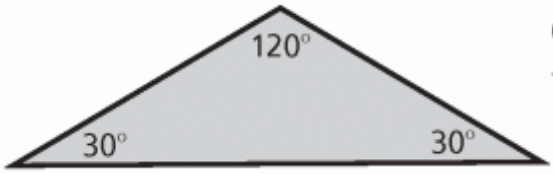
6. right isosceles
7. equilateral equiangular
8. obtuse isosceles
9. right scalene
10. acute scalene
11. obtuse scalene
12. The triangle is not an acute triangle because acute triangles have 3 angles less than 90°. The triangle is an obtuse scalene triangle because it has one angle greater than 90° and no congruent sides.

14. 

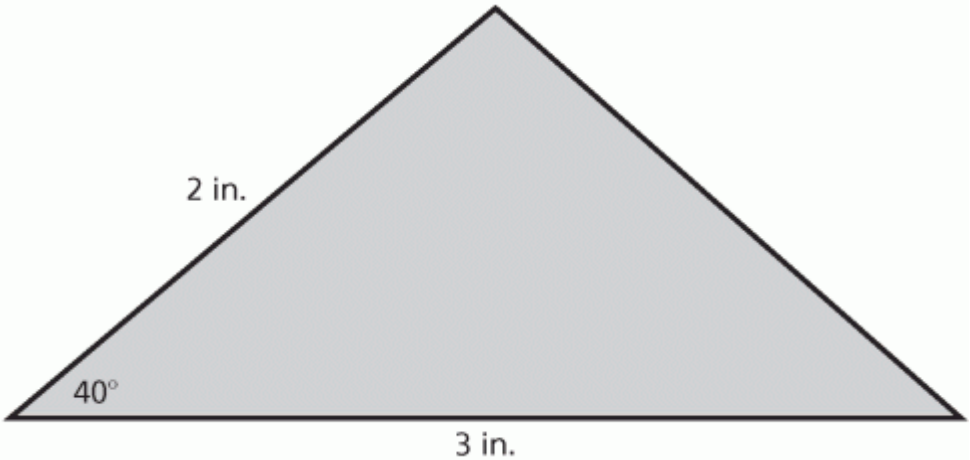
right scalene triangle

15. 

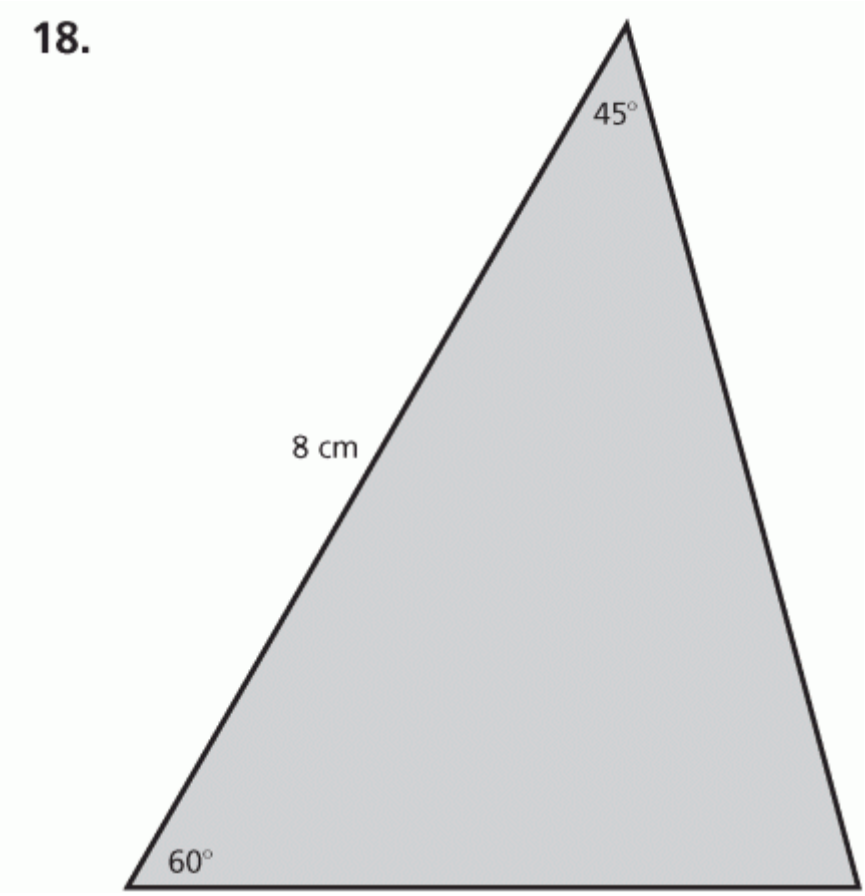
obtuse scalene triangle

16. 

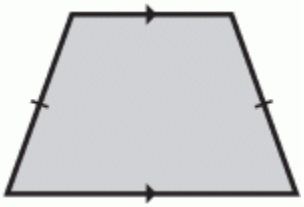
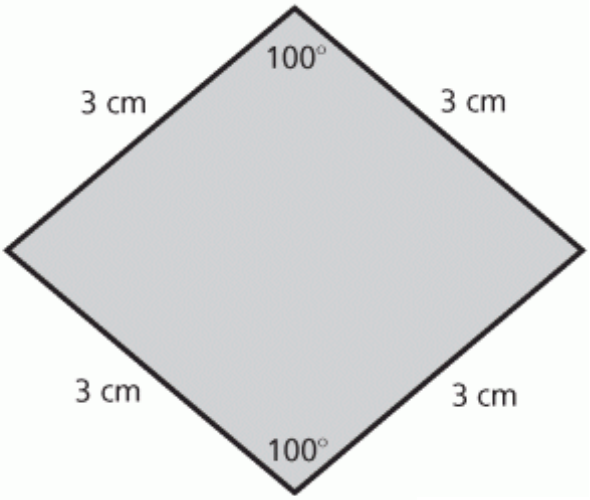
obtuse isosceles triangle

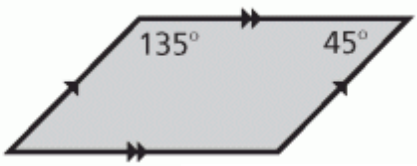
17. 

18.



p. 297 (#4-14,15-16,18-23, and 27-30)

4. square
5. trapezoid
6. rhombus
7. kite
8. parallelogram
9. rectangle
10. 65
11. 110
12. 128
13. 58°
14. 
15. 

16. 

18. always
19. always
20. sometimes

21. never
22. never
23. sometimes