

Warm Up 70

1. apothem
2. n is number of sides
and s is side length
3. B

Lesson Practice 70

- a. 140 cm^2
- b. 137.57 in^2
- c. 83.3 ft^2
- d. $\approx 887,237 \text{ ft}^2$

Practice 70

1. $m\angle P = 111^\circ$,
 $m\angle R = 111^\circ$
2. 424 ft^3
3. 28 cm
4. $m\angle 1 = 26^\circ$, $m\angle 2 = 64^\circ$,
 $m\angle 3 = 52^\circ$
5. 1522.5 miles; It is half
the perimeter of the
Bermuda Triangle.
6. $16\sqrt{3} \text{ in}^2$
7. 1060.02 g
8. sine; cosine
9. Both are special
because their angles
are the largest whole-
number divisors of
 90° (and associated
complements);
 45° - 45° - 90° are
isosceles, whereas
 30° - 60° - 90° are not.
10. $x = 12.5$
11. 160 in^2

12. B

13. B

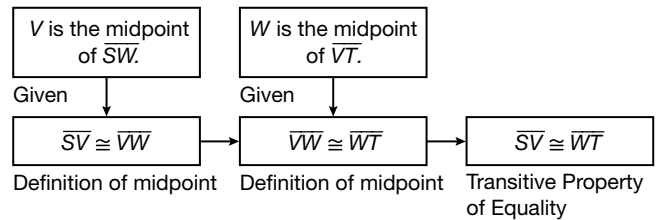
14.

Statements	Reasons
1. $\angle 1 \cong \angle 2$	1. Given
2. $\angle 1 \cong \angle 3$	2. Vertical Angles Theorem
3. $\angle 2 \cong \angle 3$	3. Transitive Property of Congruence
4. $j \parallel k$	4. Converse of the Corresponding Angles Postulate

15. $x = 3$; $QR = 9$; $MN = 6$;
 $OP = 12$ 16. $\frac{2}{21}$ or about 9.5%17. $441\sqrt{3} \text{ ft}^2$ 18. $\angle HJG \cong \angle LJK$ by
the Vertical Angles
Theorem, and $18 : 27$
 $= 16 : 24$, so $\angle HGJ \sim$
 $\angle LKJ$ by SAS Similarity19. 58 cm^2

20. Raquel is correct; the vertices of the image are labeled in a different orientation than the vertices of the preimage. By looking at the relationships between A and A' , B and B' , and C and C' , you can determine that the image was rotated.
21. either $(-1, 10\sqrt{3} - 4)$
or $(-1, \frac{10\sqrt{3}}{3} - 4)$
22. $m\widehat{MNO} = 236^\circ$
23. $86,400 \text{ m}^2$
24. $\angle F = 83^\circ$, $\angle G = 83^\circ$,
and $\angle J = 97^\circ$
25. $\frac{12}{x} = \frac{x}{300}$; $3600 = x^2$;
 $x = 60$
26. See student work;
 $l = w\sqrt{3}$
27. $MN \approx 25.04$
28. $AB = 31.5$, $CD = 31.5$,
 $BC = 10.5$, $AD = 10.5$

29.

30. 333 cm^3