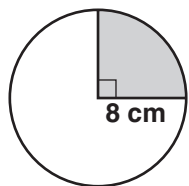


Answers for Lesson 10-7, pp. 577–579 Exercises

1. $9\pi \text{ m}^2$
2. $30.25\pi \text{ cm}^2$
3. $0.7225\pi \text{ ft}^2$
4. $\frac{\pi}{9} \text{ in.}^2$
5. about 86,394 ft^2
6. about 22 ft^2
7. $40.5\pi \text{ yd}^2$
8. $64\pi \text{ cm}^2$
9. $\frac{169\pi}{6} \text{ m}^2$
10. $12\pi \text{ in.}^2$
11. $12\pi \text{ ft}^2$
12. $56\pi \text{ cm}^2$
13. $\frac{25\pi}{4} \text{ m}^2$
14. $\frac{3\pi}{2} \text{ ft}^2$
15. $24\pi \text{ in.}^2$
16. $28.125\pi \text{ cm}^2$
17. 22.1 cm^2
18. 18.3 ft^2
19. 3.3 m^2
20. 20.4 m^2
21. 120.4 cm^3
22. $(243\pi + 162) \text{ ft}^2$
23. $(54\pi + 20.25\sqrt{3}) \text{ cm}^2$
24. $(120\pi + 36\sqrt{3}) \text{ m}^2$
25. $(4 - \pi) \text{ ft}^2$
26. $(64 - 16\pi) \text{ ft}^2$
27. $(784 - 196\pi) \text{ in.}^2$
28. A
29. Lower outside; the lower inside and top pieces have base areas $8\pi \text{ in.}^2$, but the lower outside pieces have base areas $8.75\pi \text{ in.}^2$.
30. 9 circles
31. 15.7 in.^2
32. 12 in.
33. Answers may vary. Sample: 8 cm radius; 90° arc



34. a. Answers may vary. Sample: Subtract the minor arc segment area from the area of the circle, or add the areas of the major sector and \triangle formed.
- b. $25\pi - 50$; $75\pi + 50$
35. $(49\pi - 73.5\sqrt{3}) \text{ m}^2$
36. $(200 - 50\pi) \text{ m}^2$

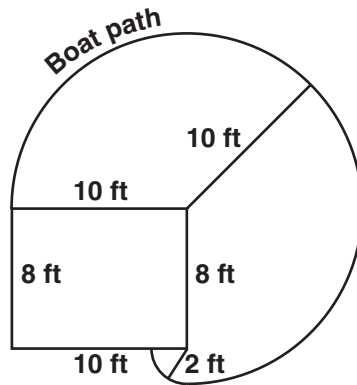
Answers for Lesson 10-7, pp. 577–579 Exercises (cont.)

37. $4\pi \text{ m}^2$

38. Blue region; let $AB = 2$. Area of blue = $4 - \pi$; area of yellow = $\pi - 2$, and $4 - \pi < \pi - 2$.

39. $\left(\frac{200\pi}{3} - 50\sqrt{3}\right) \text{ units}^2$

40. a.



b. Find the area of $\frac{3}{4}$ of a circle of radius 10 and add $\frac{1}{4}$ of a circle of radius 2.

c. 239 ft^2