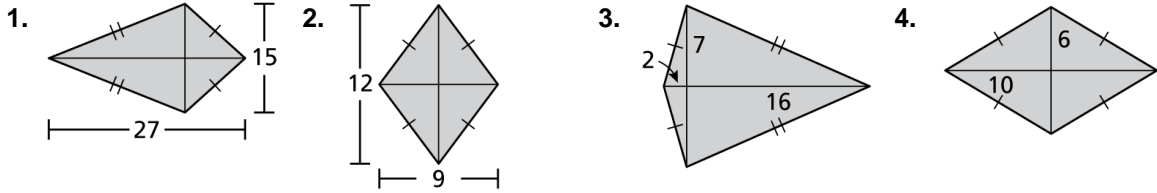


11.3

Practice A

In Exercises 1–4, find the area of the kite or rhombus.

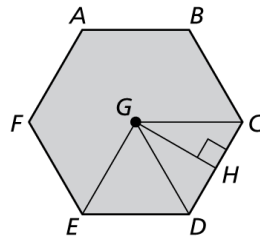


In Exercises 5–8, find the measure of a central angle of a regular polygon with the given number of sides. Round answers to the nearest tenth of a degree, if necessary.

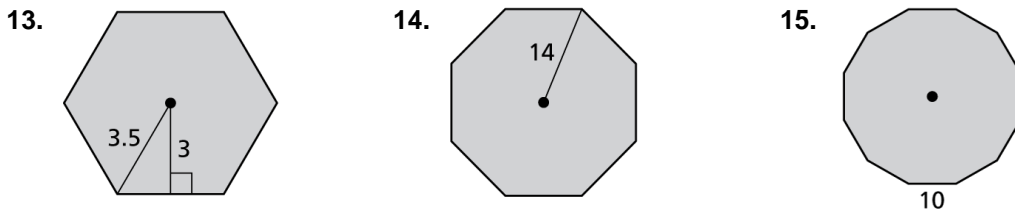
- 5. 9 sides
- 6. 16 sides
- 7. 20 sides
- 8. 28 sides

In Exercises 9–12, find the given angle measure for regular hexagon $ABCDEF$.

- 9. $m\angle CGD$
- 10. $m\angle CGH$
- 11. $m\angle HCG$
- 12. $m\angle EGC$



In Exercises 13–17, find the area of the regular polygon.

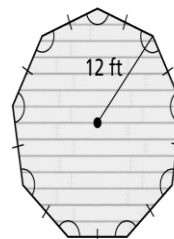


16. a pentagon with an apothem of 7 centimeters

17. a decagon with a radius of 20 meters

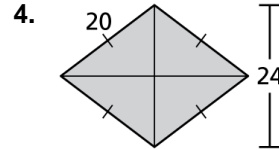
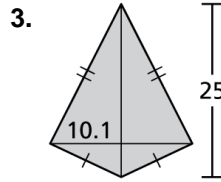
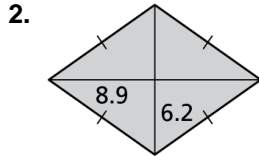
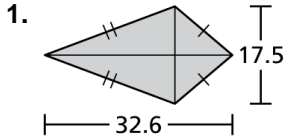
18. Use the figure of the gazebo floor.

- a. An arm rail is built around the perimeter of the gazebo. What is the length of the arm rail?
- b. A container of wood sealer covers 200 square feet. How many containers of sealer do you need to cover the entire floor of the gazebo? Explain your reasoning.



11.3 Practice B

In Exercises 1–4, find the area of the kite or rhombus.



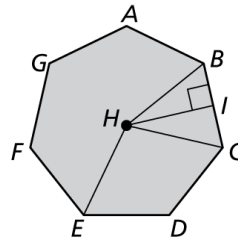
In Exercises 5–8, find the given angle measure for regular heptagon $ABCDEFGH$. Round your answer to the nearest tenth of a degree, if necessary.

5. $m\angle BHC$

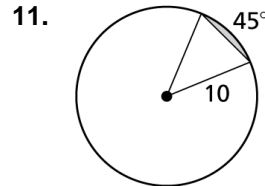
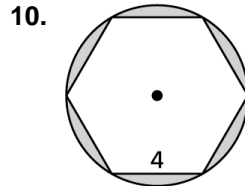
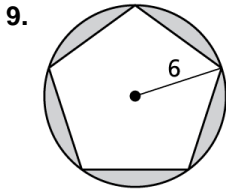
6. $m\angle BHI$

7. $m\angle IBH$

8. $m\angle EHB$



In Exercises 9–11, find the area of the shaded region.



12. The area of a kite is 384 square feet. One diagonal is three times as long as the other diagonal. Find the length of each diagonal.
13. The area of a rhombus is 484 square millimeters. One diagonal is one-half as long as the other diagonal. Find the length of each diagonal.
14. You are laying concrete around a gazebo that is a regular octagon with a radius of 8 feet. The concrete will form a circle that extends 15 feet from the vertices of the octagon.
 - a. Sketch a diagram that represents this situation.
 - b. What is the area of the concrete to the nearest square foot?
15. The perimeter of a regular 11-gon is 16.5 meters. Is this enough information to find the area? If so, find the area and explain your reasoning. If not, explain why not.