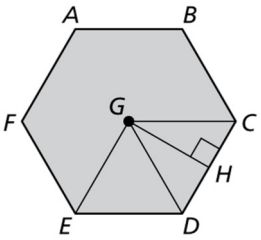
Name_____ Date _____

11.3 Practice A

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*.

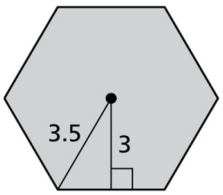


9. $m\angle CGD$ **10.** $m\angle CGH$

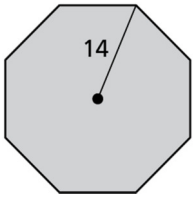
11. $m\angle HCG$ **12.** $m\angle EGC$

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

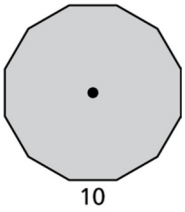
13.



14.



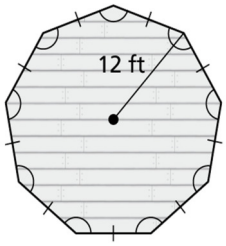
15.



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.



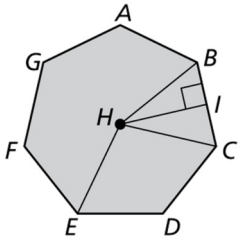
a. An arm rail is built around the perimeter of the gazebo. What is the length of the arm rail?

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.

Name_____ Date _____

11.3 Practice B

In Exercises 5–8, find the given angle measure for regular heptagon *ABCDEFG*. 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. $m\angle EHB$

Find the area of heptagon *ABCDEFG*.

11.3 Practice A

1. 202.5 square units **2.** 54 square units

3. 126 square units **4.** 120 square units

5. 40° **6.** 22.5° **7.** 18°

8. 12.9° **9.** 60° **10.** 30°

11. 60° **12.** 120°

13. 32.4 square units **14.** 554.4 square units

15. 1119.6 square units **16.** 178 cm^2

17. 1175.6 m^2

18. a. about 73.9 ft

b. 3 containers; The area of the floor is about 416.5 square feet. Because $416.5 \div 200 \approx 2.08$ and you cannot buy part of a container, you will need 3 containers of wood sealer.

11.3 Practice B

1. 285.25 square units **2.** 110.36 square units

3. 252.5 square units **4.** 384 square units

5. 51.4° **6.** 25.7° **7.** 64.3°

8. 154.3° **9.** 27.5 square units