Name:_____ Date:_____
Geometry Band:_____

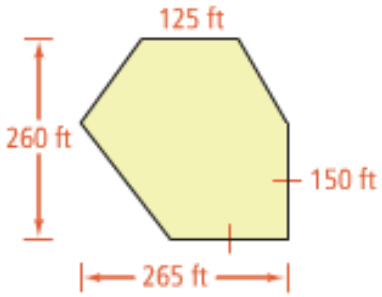
Unit 10: Area Performance Tasks

Instructions: Choose one performance task. Write all your work on a separate clean piece of paper and attach it to this page.

Big Idea: Measurement
You can use formulas to find areas of polygons.

Performance Task 1

A real estate company sells plots of land. The plot shown at right costs $84,120. What is the price per square foot of the land? Explain how you found your answer.

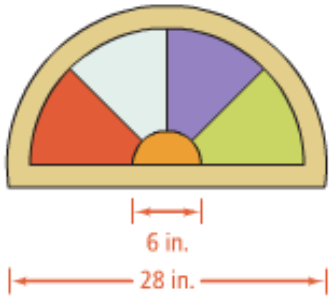


Big Idea: Measurement
An arc length is a fractional part of the circumference of a circle. The area of a sector is a fractional part of the area of a circle.

Performance Task 2

The stained glass circle-head window has a 2-in. wide frame. The grills divide the semicircular glass pane into four congruent regions.

A. What is the area of the blue region?
B. What is the outside perimeter of the window frame?



Big Idea: Similarity
The ratio of the perimeters and the ratio of the areas of two similar figures are related to the ratio of the corresponding measures.

Performance Task 3

Regular hexagon $ABCDEF$ has vertices at $A(4,4\sqrt{3}), B(8,4\sqrt{3}), C(10,2\sqrt{3}), D(8,0), E(4,0)$, and $F(2,2\sqrt{3})$. Suppose the sides of the hexagon are reduced by 40% to produce a similar regular hexagon. What are the perimeter and area of the smaller hexagon rounded to the nearest tenth? Explain how you found your answer.

Performance Task Assessment: Analytic Holistic Scoring

Developing Autonomy—The student

3	Persevered to complete the problem without help
2	Completed most of the problem without help
1	Needed key hints to complete the problem
0	Needed extensive guidance to work the problem

The Solution Process—The student's work showed

3	A complete and appropriate solution process
2	An appropriate solution process that is almost complete
1	An appropriate process that is partially complete
0	An inappropriate process or no evidence of a process

The Conclusion/Answer—The student's answer is an

3	Accurate conclusion, supported by valid evidence and reasons, appropriate to this problem and context
2	Inaccurate but logical conclusion, supported by evidence and reasoning but incorrect due to a minor factual error (in details of problem, in computation, recall a formula, etc.) or minor mistake in reasoning
1	Inaccurate but logical conclusion that overlooks, or gets wrong significant facts (about the problem, the rule, computation, etc.)
0	Inappropriate conclusion: not supported by facts and logic, or there is no conclusion

Teacher Comments: