

Name: \_\_\_\_\_  
 Geometry

Date: \_\_\_\_\_  
 Band: \_\_\_\_\_

### Unit 3: Parallel and Perpendicular Lines 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: Reasoning and Proof**

You can observe patterns to make a conjecture; you can prove a conjecture is true by using given information, definitions, properties, postulates, and theorems.

**Performance Task 1**

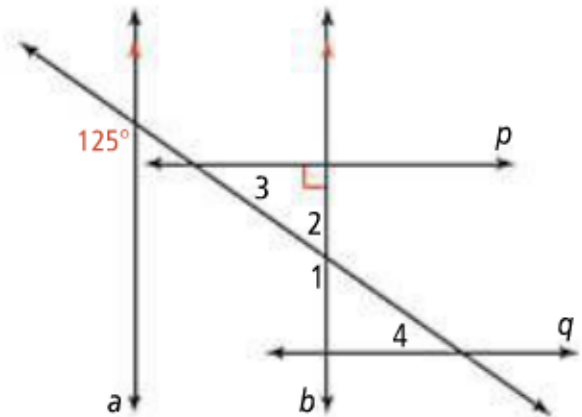
You want to put tape on the ground to mark the lines for a volleyball court. What is the most efficient way to make sure that the opposite sides of the court are parallel? Support your answer with a diagram.

**Big Idea: Measurement**

You can find missing angle measures in triangles by using the fact that the sum of the measures of the angles of a triangle is 180.

**Performance Task 2**

In the diagram below,  $a \parallel b$ . For lines  $p$  and  $q$  to be parallel, what is  $m\angle 4$ ? Explain.



**Big Idea: Coordinate Geometry**

You can write the equation of a line by using its slope and  $y$ -intercept.

**Performance Task 3**

$\overleftrightarrow{AB}$  contains points  $A(-6, -1)$  and  $B(1, 4)$ .  $\overleftrightarrow{CD}$  contains point  $D(7, 2)$ . If  $\angle ABC \cong \angle BCD$  and  $m\angle ABC = 90$ , what is an equation of  $\overleftrightarrow{CD}$ ? Show your work.

**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:**