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3-3
Practice Form $G$
Proving Lines Parallel

Which lines or segments are parallel? Justify your answer.
1.

3.

4.

6.

7. Developing Proof Complete the flow proof below.

Given: $\angle 1$ and $\angle 2$ are supplementary; $x \| y$
Prove: $q \| r$

8. The art club is designing a new flag for the marching band. In the diagram, $m \angle 1=45, m \angle 2=45$, and $m \angle 3=145$. Does the flag contain three parallel lines? Explain.

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3-3
Practice (continued)
Form G
Proving Lines Parallel

Algebra Determine the value of $x$ for which $r \| s$. Then find the measure of each labeled angle.
9.

11.

12.

13.


Developing Proof Use the given information to determine which lines, if any, are parallel. Justify each conclusion with a theorem or postulate.
15. $\angle 11$ is supplementary to $\angle 10$.
16. $\angle 6 \cong \angle 9$
19. $\angle 12$ is supplementary to $\angle 3$.
20. $\angle 2 \cong \angle 13$


Algebra Determine the value of $\boldsymbol{x}$ for which $\boldsymbol{j} \| \boldsymbol{k}$. Then find $\boldsymbol{m} \angle 1$ and $\boldsymbol{m} \angle \mathbf{2}$.
21. $m \angle 1=7 x+14, m \angle 2=2 x+4$

