## 3-3

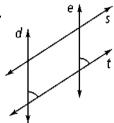
## **Practice**

Form G

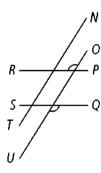
**Proving Lines Parallel** 

Which lines or segments are parallel? Justify your answer.

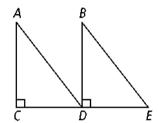
1.



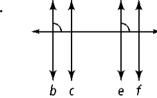
3.



4.



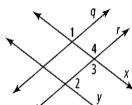
6.

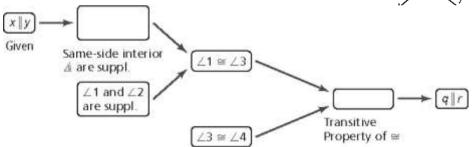


**7. Developing Proof** Complete the flow proof below.

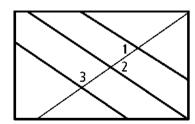
**Given:**  $\angle 1$  and  $\angle 2$  are supplementary;  $x \parallel y$ 

**Prove:**  $q \parallel r$ 





**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.



## 3-3

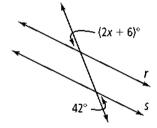
## Practice (continued)

Form G

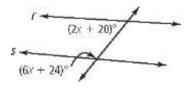
Proving Lines Parallel

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

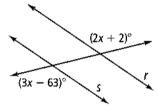
9.



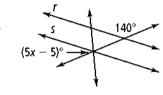
11.



12.



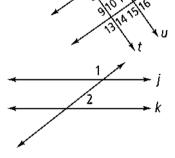
12



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  $\angle 10$ .

**19.** 
$$\angle 12$$
 is supplementary to  $\angle 3$ .



Algebra Determine the value of x for which  $j \parallel k$ . Then find  $m \angle 1$  and  $m \angle 2$ .

**21.** 
$$m \angle 1 = 7x + 14$$
,  $m \angle 2 = 2x + 4$