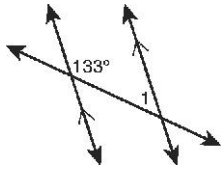
Name _____ Date _____ Class_____

LESSON 14-2

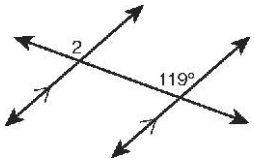
Transversals and Parallel Lines

Practice and Problem Solving: A/B

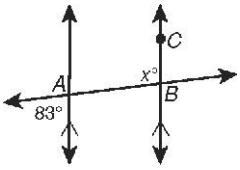
Find each angle measure.



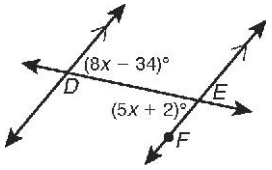
1. m∠1 _____



2. m∠2 _____

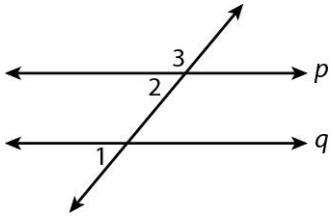


3. m∠*ABC* _____



4. m∠*DEF* _____

Complete the two-column proof to show that same-side exterior angles are supplementary.



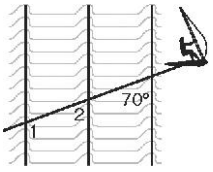
5. **Given:** $p \parallel q$

   Prove: $m\angle 1 + m\angle 3 = 180°$

   Proof:

Statements	Reasons
1. $p \parallel q$	1. Given
2. a. _____	2. Lin. Pair Thm.
3. $\angle 1 \cong \angle 2$	3. b. _____
4. c. _____	4. Def. of $\cong$ $\measuredangle$s
5. d. _____	5. e. _____

6. Ocean waves move in parallel lines toward the shore. The figure shows Sandy Beaches windsurfing across several waves. For this problem, think of Sandy's wake as a line. $m\angle 1 = (2x + 10)°$ and $m\angle 2 = (4y - 30)°$. Find x and y.



x = _____

y□ = _____

LESSON 14-2

Practice and Problem Solving: A/B

1. 47°
2. 119°
3. 97°
4. 62°
5. a. $m\angle 2 + m\angle 3 = 180°$
   b. Corr. $\angle$s Thm.
   c. $m\angle 1 = m\angle 2$
   d. $m\angle 1 + m\angle 3 = 180°$
   e. Subst.
6. $x = 50$; $y = 25$