

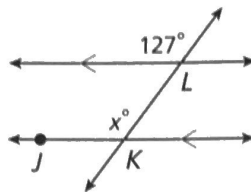


GUIDED PRACTICE

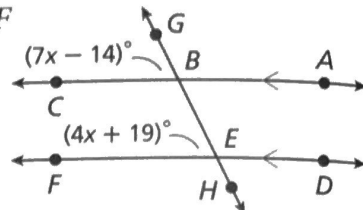
SEE EXAMPLE 1

Find each angle measure.

1. $m\angle JKL$

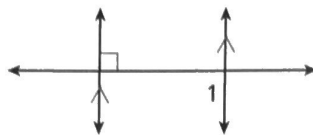


2. $m\angle BEF$

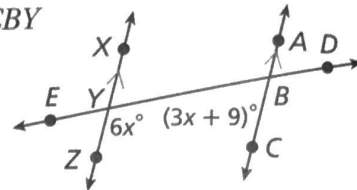


SEE EXAMPLE 2

3. $m\angle 1$

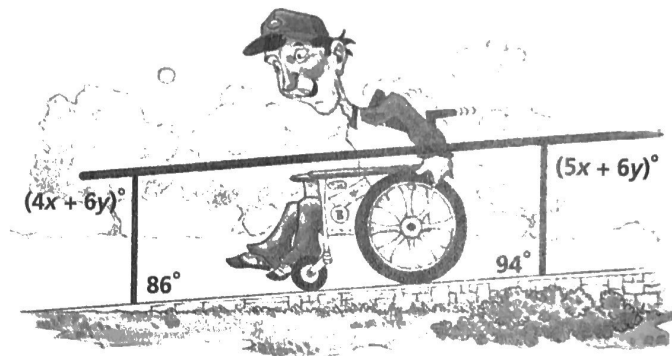


4. $m\angle CBY$



SEE EXAMPLE 3

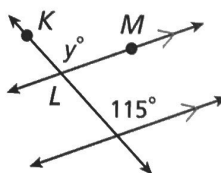
5. **Safety** The railing of a wheelchair ramp is parallel to the ramp. Find x and y in the diagram.



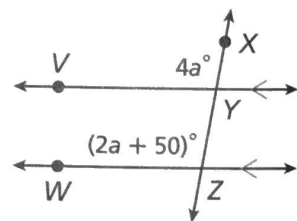
PRACTICE AND PROBLEM SOLVING

Find each angle measure.

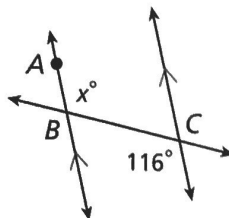
6. $m\angle KLM$



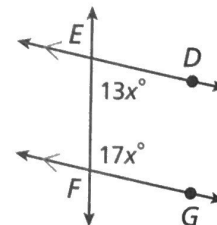
7. $m\angle VYX$



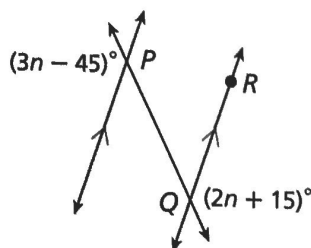
8. $m\angle ABC$



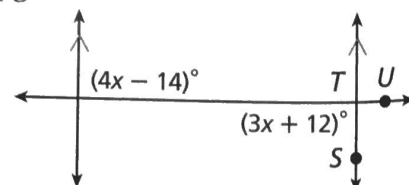
9. $m\angle EFG$



10. $m\angle PQR$



11. $m\angle STU$



Independent Practice

For Exercises	See Example
6-7	1
8-11	2
12	3



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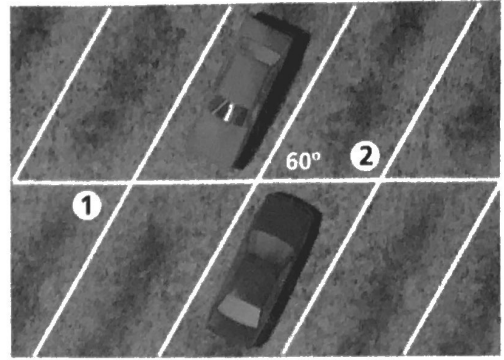
Online Extra Practice

12. **Parking** In the parking lot shown, the lines that mark the width of each space are parallel.

$$m\angle 1 = (2x - 3y)^\circ$$

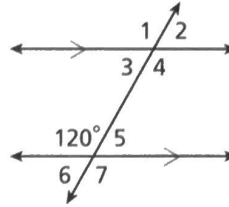
$$m\angle 2 = (x + 3y)^\circ$$

Find x and y .



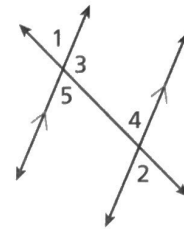
Find each angle measure. Justify each answer with a postulate or theorem.

13. $m\angle 1$ 14. $m\angle 2$ 15. $m\angle 3$
 16. $m\angle 4$ 17. $m\angle 5$ 18. $m\angle 6$
 19. $m\angle 7$

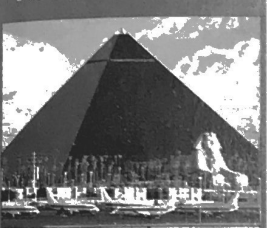


Algebra State the theorem or postulate that is related to the measures of the angles in each pair. Then find the angle measures.

20. $m\angle 1 = (7x + 15)^\circ$, $m\angle 2 = (10x - 9)^\circ$
 21. $m\angle 3 = (23x + 11)^\circ$, $m\angle 4 = (14x + 21)^\circ$
 22. $m\angle 4 = (37x - 15)^\circ$, $m\angle 5 = (44x - 29)^\circ$
 23. $m\angle 1 = (6x + 24)^\circ$, $m\angle 4 = (17x - 9)^\circ$



Architecture



The Luxor hotel is 600 feet wide, 600 feet long, and 350 feet high. The atrium in the hotel measures 29 million cubic feet.

24. **Architecture** The Luxor Hotel in Las Vegas, Nevada, is a 30-story pyramid. The hotel uses an elevator called an inclinor to take people up the side of the pyramid. The inclinor travels at a 39° angle. Which theorem or postulate best illustrates the angles formed by the path of the inclinor and each parallel floor? (*Hint: Draw a picture.*)

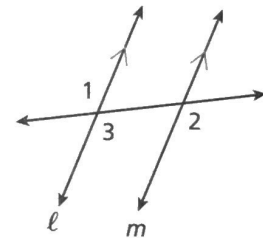
25. **Complete the two-column proof of the Alternate Exterior Angles Theorem.**

Given: $\ell \parallel m$

Prove: $\angle 1 \cong \angle 2$

Proof:

Statements	Reasons
1. $\ell \parallel m$	1. Given
2. a. <u> </u> ?	2. Vert. \sphericalangle Thm.
3. $\angle 3 \cong \angle 2$	3. b. <u> </u> ?
4. c. <u> </u> ?	4. d. <u> </u> ?



- HOT** 26. **Write a paragraph proof of the Same-Side Interior Angles Theorem.**

Given: $r \parallel s$

Prove: $m\angle 1 + m\angle 2 = 180^\circ$

- HOT** Draw the given situation or tell why it is impossible.

27. Two parallel lines are intersected by a transversal so that the corresponding angles are supplementary.
 28. Two parallel lines are intersected by a transversal so that the same-side interior angles are complementary.

