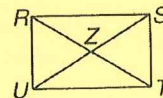## 8-4 Practice
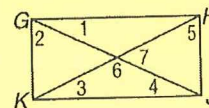
Rectangles

ALGEBRA *RSTU* is a rectangle.

1. If $UZ = x + 21$ and $ZS = 3x - 15$, find US.

2. If $RZ = 3x + 8$ and $ZS = 6x - 28$, find UZ.

3. If $RT = 5x + 8$ and $RZ = 4x + 1$, find ZT.

4. If $m\angle SUT = 3x + 6$ and $m\angle RUS = 5x - 4$, find $m\angle SUT$.

5. If $m\angle SRT = x^2 + 9$ and $m\angle UTR = 2x + 44$, find x.

6. If $m\angle RSU = x^2 - 1$ and $m\angle TUS = 3x + 9$, find $m\angle RSU$.

GHJK **is a rectangle. Find each measure if** $m\angle 1 = 37$.

7. $m\angle 2$ 8. $m\angle 3$

9. $m\angle 4$ 10. $m\angle 5$

11. $m\angle 6$ 12. $m\angle 7$

COORDINATE GEOMETRY Determine whether *BGHL* is a rectangle given each set of vertices. Justify your answer.

13. $B(-4, 3), G(-2, 4), H(1, -2), L(-1, -3)$

14. $B(-4, 5), G(6, 0), H(3, -6), L(-7, -1)$

15. $B(0, 5), G(4, 7), H(5, 4), L(1, 2)$

16. **LANDSCAPING** Huntington Park officials approved a rectangular plot of land for a Japanese Zen garden. Is it sufficient to know that opposite sides of the garden plot are congruent and parallel to determine that the garden plot is rectangular? Explain.