**Rectangles Practice**

**ALGEBRA Quadrilateral *RSTU* is a rectangle.**

 **1.** If *UZ* = *x* + 21 and *ZS* = 3*x* – 15, find *US*.

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

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

 **4.** If *m*∠*SUT* = 3*x* + 6 and *m*∠*RUS* = 5*x* – 4, find *m*∠*SUT*.

 **5.** If *m*∠*SRT* = *x* + 9 and *m*∠*UTR* = 2*x* – 44, find *m*∠*UTR*.

 **6.** If *m*∠*RSU* = *x* + 41 and *m*∠*TUS* = 3*x* + 9, find *m*∠*RSU*.

**Quadrilateral *GHJK* is a rectangle. Find each measure if *m***∠**1 = 37.**

** 7.** *m*∠2 **8.** *m*∠3

 **9.** *m*∠4 **10.** *m*∠5

**11.** *m*∠6 **12.** *m*∠7

 **Determine whether the figure is a rectangle. Justify your answer using the indicated formula.**

**13.** *B*(–4, 3), *G*(–2, 4), *H*(1, –2), *L*(–1, –3); Slope Formula

**14.** *N*(–4, 5), *O*(6, 0), *P*(3, –6), *Q*(–7, –1); Distance Formula

**15.** 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.

**16.** A landscaper is marking off the corners of a rectangular plot of land. Three of the corners are A(0, 6), B(5, -4), and C(-1, -7). What are the coordinates of the fourth corner?

**17.** Antonio is designing a swimming pool on a coordinate grid. Is it a rectangle? Explain.