() Do exercises 7.2.1, 7.2.2, 7.2.3, 7.2.4 on pages 106–107. (You will have to correct the statements in 7.2.3 and 7.2.4, since there are some other degenerate cases that Stillwell forgot.)

() Do exercise 7.4.2 on page 111.

(1) Use the continued fraction method to find the smallest solution in positive integers to $x^2 - 13y^2 = 1$.

(2) Show that any two nondegenerate conic sections (ellipses, hyperbolas, parabolas) have projective closures that are projectively equivalent (that is, one can be transformed into the other by an element of $\text{GL}(3, \mathbb{R})$).