We are all familiar with the 3–4–5 right triangle, but have you ever tried to find less well-known right triangles to use on a test or in a classroom demonstration? If so, there is a clever theorem from number theory that tells you how to generate all such right triangles. In this talk I will show you how to get a graphing calculator to use this theorem to generate the triangles for you. (Received September 22, 2009)