

1014-Z1-1763 **Wasin So*** (so@math.sjsu.edu), Department of Mathematics, San Jose State University, San Jose, CA 95192. *Cutting right triangles right!* Preliminary report.

We consider the problem of cutting right triangles into n congruent triangles similar to the original one. Such a right triangle exists if and only if n is a square, a sum of two squares, or three times of a square. The sufficiency part of the proof is easy. To tackle the necessity part, we employ tools involving eigenvalues and also rational values of trigonometric functions. (Received September 29, 2005)