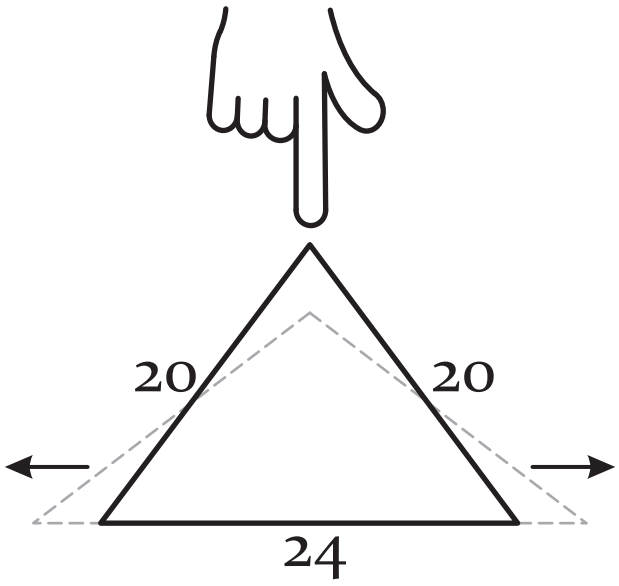
This brainteaser was written by Derrick Niederman.

The triangle below lies on a flat surface and is pushed at the top vertex. The length of the congruent sides does not change, but the angle between the two congruent sides will increase, and the base will stretch. Initially, the area of the triangle will increase, but eventually the area will decrease, continuing until the triangle collapses.



What is the maximum area achieved during this process? And, what is the length of the base when this process is used to create a different triangle whose area is the same as the triangle above?