962-33-1363 Victor H Moll\* (vhm@math.tulane.edu), Department of Mathematics, Tulane University, New Orleans, LA LA 70118. *Rational Landen transformations*. Preliminary report.

The classical Landen transformation

$$a \to (a+b)/2, b \to \sqrt{ab}$$

preservs an elliptic integral and its iteration produces the arithmetic-geometric mean. We present an analogue of this transformation for the integral of a rational function. (Received October 03, 2000)