

Start with 2, keep doing $p_1 * \dots * p_r + 1$:

> 2+1;

3 (1)

> 2*3+1;

7 (2)

> 2*3*7+1;

43 (3)

> 2*3*7*43+1;

1807 (4)

> ifactor(1807);

(13) (139) (5)

So not all numbers in the "Euclid sequence" are prime.

See (google): FRACTRAN, Sieve of Eratosthenes