Primijenimo prvo Lucas-Lehmerov test na broj $M_{11} = 2^{11} - 1 = 2047$. Prema ovom testu, imamo:

$$r_1 = 4$$
$$r_2 = \mathrm{mod}(r_1^2 - 2, M_{11}) = \mathrm{mod}(14, 2047) = 14$$
$$r_3 = \mathrm{mod}(r_2^2 - 2, M_{11}) = \mathrm{mod}(194, 2047) = 194$$
$$r_4 = \mathrm{mod}(r_3^2 - 2, M_{11}) = \mathrm{mod}(37634, 2047) = 788$$
$$r_5 = \mathrm{mod}(r_4^2 - 2, M_{11}) = \mathrm{mod}(620942, 2047) = 701$$
$$r_6 = \mathrm{mod}(r_5^2 - 2, M_{11}) = \mathrm{mod}(491399, 2047) = 119$$
$$r_7 = \mathrm{mod}(r_6^2 - 2, M_{11}) = \mathrm{mod}(14159, 2047) = 1877$$
$$r_8 = \mathrm{mod}(r_7^2 - 2, M_{11}) = \mathrm{mod}(3523127, 2047) = 240$$
$$r_9 = \mathrm{mod}(r_8^2 - 2, M_{11}) = \mathrm{mod}(57598, 2047) = 282$$
$$r_{10} = \mathrm{mod}(r_9^2 - 2, M_{11}) = \mathrm{mod}(79522, 2047) = 1736$$

Kako je $r_{10} \neq 0$, broj M_{11} nije prost. Zaista, vrijedi $M_{11} = 23 \cdot 89$.

Testirajmo sada broj $M_{13} = 2^{13} - 1 = 8191$. Imamo:

$$r_1 = 4$$
$$r_2 = \mathrm{mod}(r_1^2 - 2, M_{13}) = \mathrm{mod}(14, 8191) = 14$$
$$r_3 = \mathrm{mod}(r_2^2 - 2, M_{13}) = \mathrm{mod}(194, 8191) = 194$$
$$r_4 = \mathrm{mod}(r_3^2 - 2, M_{13}) = \mathrm{mod}(37634, 8191) = 4870$$
$$r_5 = \mathrm{mod}(r_4^2 - 2, M_{13}) = \mathrm{mod}(23716898, 8191) = 3953$$
$$r_6 = \mathrm{mod}(r_5^2 - 2, M_{13}) = \mathrm{mod}(15626207, 8191) = 5970$$
$$r_7 = \mathrm{mod}(r_6^2 - 2, M_{13}) = \mathrm{mod}(35640898, 8191) = 1857$$
$$r_8 = \mathrm{mod}(r_7^2 - 2, M_{13}) = \mathrm{mod}(3448447, 8191) = 36$$
$$r_9 = \mathrm{mod}(r_8^2 - 2, M_{13}) = \mathrm{mod}(1294, 8191) = 1294$$
$$r_{10} = \mathrm{mod}(r_9^2 - 2, M_{13}) = \mathrm{mod}(1674434, 8191) = 3470$$
$$r_{11} = \mathrm{mod}(r_{10}^2 - 2, M_{13}) = \mathrm{mod}(12040898, 8191) = 128$$
$$r_{12} = \mathrm{mod}(r_{11}^2 - 2, M_{13}) = \mathrm{mod}(16382, 8191) = 0$$

Kako je $r_{12} = 0$, broj M_{13} je prost.