$\boldsymbol{\beta^2 = m\beta + 1}$

$$\beta = \frac{m + \sqrt{m^2 + 4}}{2}$$

Pro $m > 0$ je $\beta \in (m; m+1)$. Tedy $\lfloor \beta \rfloor = m$.

$$(1 - \varepsilon)_\beta :$$

$$\begin{aligned} x_1 = \lfloor \beta(1-\varepsilon) \rfloor = m \quad & T_\beta^1(1-\varepsilon) = \beta(1-\varepsilon) - m \\ x_2 = \lfloor \beta(\beta - \varepsilon\beta - m) \rfloor = \lfloor \beta^2 - \varepsilon\beta^2 - m\beta \rfloor = \lfloor 1 - \varepsilon\beta^2 \rfloor = 0 \quad & T_\beta^2(1-\varepsilon) = 1 - \varepsilon\beta^2 = T_\beta^0(1-\varepsilon) \end{aligned}$$

$$(1 - \varepsilon)_\beta = 0.(m0)^\omega$$
$$d_\beta^*(1) = (m0)^\omega$$

Platné cifry jsou tedy $\{0; 1; ...; m\}$, v desetinném rozvoji musí po m následovat vždy 0 a nesmí končit s $(0m)^\omega$.