

Pseudocode for Radix-I Converter

Data D = decimal number

Data Rad = Radix

Result: Radix number R, where $R = r_n, r_{n-1} \dots r_1, r_0$.

MSB_Index = roundup($\log_{\text{Rad}}(D+1)$)-1; // Calculate the most significant index

$d_i = D$, $q = 0$, $i = \text{MSB_index}$, $r_i = 0$ // Initialize variables
print(the radix- r_i value is)

for ($i > 0$) **do**

$q = d_i / \text{Rad}^i$ $q \in \{0, 1, 2 \dots \text{Rad}-2, \text{Rad}-1\}$. // Get the quotient

If ($q > 9$) **then** // Check for letter representation

$r_i = q + 55$; // ASCII letters start at 65

 print(r_i)

else

$r_i = q$;

 print(r_i)

end

$d_{i-1} = d_i \% \text{Rad}^i$; // Calculate the value of d_{i-1}

end