

Méthode par encadrements :

$$(329)_{10} = \left(\begin{matrix} 4 & 3 & 2 & 1 & 0 \\ & 2 & 3 & 0 & 4 \end{matrix} \right)_5$$

puissances \rightarrow

facteurs \downarrow

1	5	25	125	625	...
2	10	50	250	...	
3	15	75	375		
4	20	100	...		

$$2 \cdot 5^3 \leq 329 < \dots$$

$$3 \cdot 5^2 \leq 79 < \dots$$

$$4 \cdot 5^0 \leq 4 < \dots$$

Méthode for divisions sucesives :

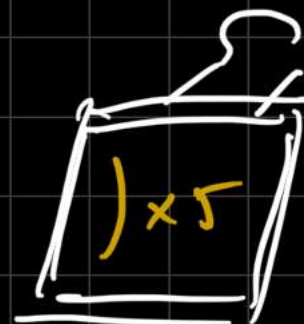
$$(329)_{10} = (2034)_5$$

329 | 5
4 | 65 | 5
0 | 13 | 5
3 | 2 | 5
2 | 0

Méthode de Horner :

$$(4312)_5 = (582)_{10}$$

$$\begin{array}{ccccccc} (((4) \times 5 + 3) \times 5 + 1) \times 5 + 2 & & & & & & \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \\ 20 & 23 & 115 & 116 & 580 & 582 & \end{array}$$



Méthode par dépliage-repliage :

$$(3213\underline{3})_4 \stackrel{\text{dépliage}}{=} (1637)_8 \stackrel{\text{repliage}}{=} (1110011111)_2$$

The diagram illustrates the conversion of a base-4 number to a base-2 number using the unfold-fold method. The base-4 number $(3213\underline{3})_4$ is shown with a blue underline under the last digit and a blue 2^2 indicating its value. An orange arrow labeled "dépliage" points from this number to the base-2 representation $(1110011111)_2$. The base-2 number is grouped into five pairs of digits, each pair corresponding to a base-4 digit: $(11)_2$ for 3, $(10)_2$ for 2, $(01)_2$ for 1, $(11)_2$ for 3, and $(11)_2$ for the underlined 3. A green arrow labeled "repliage" points from the base-2 number back to the base-8 number $(1637)_8$, which is shown with a blue 2^3 indicating its value.

$$0 = (00)_2 \quad 1 = (01)_2 \quad 2 = (10)_2 \quad 3 = (11)_2$$

Arithmétique Shadok.

table d'addition

+	0	-	J	Δ
0	0	-	J	Δ
-	-	-	J	Δ
J	J	Δ	-	0
Δ	Δ	0	-	-

$$\begin{array}{r}
 \text{---} \text{---} \text{---} \\
 \text{---} \text{J} \Delta \Delta \\
 + \Delta \Delta 0 \text{---} \\
 \hline
 \text{---} 0 \text{J} 0 \text{---}
 \end{array}$$

épreuve par Δ?

$$\begin{array}{r}
 \equiv \text{J} \bmod \Delta \\
 \equiv \text{J} \bmod \Delta \\
 \hline
 \equiv \text{---} \bmod \Delta
 \end{array}$$

parce ✓

table de multiplication

x	0	-	J	Δ
0	0	0	0	0
-	0	-	J	Δ
J	0	J	-	0
Δ	0	Δ	-	J

$$\begin{array}{r}
 \text{---} \text{---} \text{---} \text{---} \text{---} \\
 \text{---} \text{---} \text{---} \text{---} \text{---} \\
 + \text{---} \text{---} \text{---} \text{---} \text{---} \\
 + \text{---} \text{---} \text{---} \text{---} \text{---} \\
 \hline
 \text{---} \text{---} \text{---} \text{---} \text{---}
 \end{array}$$