Conversions

$5 \rightarrow 5$

$16 \rightarrow x$

$13 \rightarrow 10$

$20 \rightarrow 17$

$130 \rightarrow x0$

$=$

u_{10}

How to?

Target system digits

0, 1, 2, ..., x, y, z

Base: 13

There are 0.. base-1 digits

1. Determine base power of u_{10} value

$$\text{Truncate}\left(\frac{\lg(u_{10})}{\lg(\text{base})}\right) \rightarrow \text{base power}$$

until base power < 0

$5 \rightarrow 0$

$10 \rightarrow 0$

$13 \rightarrow 1$

$168 \rightarrow 1$

$169 \rightarrow 2$

2. Divide by base raised to base power

$130 \setminus 13^1 = 1 \hat{=}$ factor

3. Map factor to target system digit

4. Let remainder become u_{10}

Decrement base power