$n = 32$
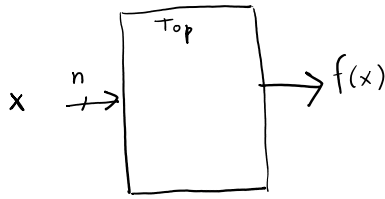
Top

$x \xrightarrow{n}$ → $f(x)$
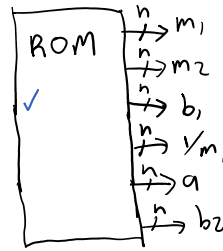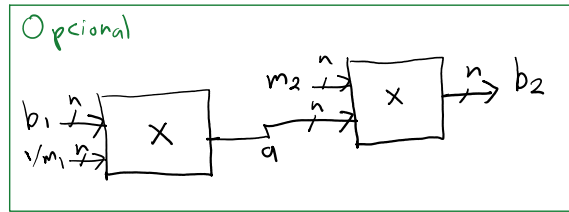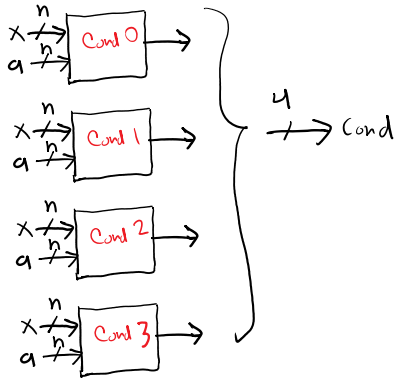
f_0
f_1
f_2
f_3

$$f(x) = \begin{cases} m_1 x + b_1 & \text{if } x \leq -a < 0, & \text{Cond 0} \\ m_2 x + b_2 & \text{if } -a < x < 0, & \text{Cond 1} \\ m_2 x - b_2 & \text{if } 0 \leq x < a, & \text{Cond 2} \\ m_1 x - b_1 & \text{if } x \geq a, & \text{Cond 3} \end{cases} \quad (4)$$

(SCM)
Single Constant multiplier

$a = b_1 \cdot \dfrac{1}{m_1}$

$b_2 = \dfrac{b_1}{m_1} \cdot m_2 = a \cdot m_2$

ROM
✓
$\xrightarrow{n} m_1$
$\xrightarrow{n} m_2$
$\xrightarrow{n} b_1$
$\xrightarrow{n} 1/m_1$
$\xrightarrow{n} a$
$\xrightarrow{n} b_2$

$x \xrightarrow{n}$ $a \xrightarrow{n}$ Cond 0 →
$x \xrightarrow{n}$ $a \xrightarrow{n}$ Cond 1 →
$x \xrightarrow{n}$ $a \xrightarrow{n}$ Cond 2 →
$x \xrightarrow{n}$ $a \xrightarrow{n}$ Cond 3 →

$\xrightarrow{4}$ Cond

Opcional

$b_1 \xrightarrow{n}$ $1/m_1 \xrightarrow{n}$ X → a → $m_2 \xrightarrow{n}$ X $\xrightarrow{n} b_2$

Cond   Sel
0 0 0 1   Codificador   0 0
0 0 1 0   →   0 1
0 1 0 0   1 0
1 0 0 0   1 1

Cond $\xrightarrow{4}$ Cod $\xrightarrow{2}$ Sel

$x \xrightarrow{n}$ $m_1 \xrightarrow{n}$ X → $b_1 \to +$ → f_0
                              → $b_1 \to -$ → f_3

$x \xrightarrow{n}$ $m_2 \xrightarrow{n}$ X → $b_2 \to +$ → f_1
                              → $b_2 \to -$ → f_2

$f_0 \xrightarrow{n}$ 0001
$f_1 \xrightarrow{n}$ 0010
$f_2 \xrightarrow{n}$ 0100
$f_3 \xrightarrow{n}$ 1000
$\xrightarrow{n} f(x)$
↑ 2