

$$g(n) = \lfloor \log_2(n) \rfloor$$

$$h(n) = n \ \& \ (1 \ll g(n))$$

$$f_1(n) = (n - h(n)) \ll 1$$

$$f_2(n) = \neg h(2n) \ \& \ ((n \ll 1) \gg 1)$$