MAS 02

6.) $\Omega = \{-1, 0, 1, 2, 3\}$ $\quad f: \Omega \to \mathbb{Z}$ $\quad f(x) = x^2 - 3x$

ges: $f^{-1}(2^{\mathbb{Z}})$

$f^{-1}(2^{\mathbb{Z}}) = f^{-1}(A_6(2^{\mathbb{Z}})) = A_6(f^{-1}(2^{\mathbb{Z}})) = A_6(\{\{-1\}, \{0,3\}, \{1,2\}\})$

$= \{\emptyset, \{-1\}, \{0,3\}, \{1,2\}, \{-1,0,3\}, \{-1,1,2\}, \{0,1,2,3\}, \{-1,0,1,2,3\}\}$

$-1 \mapsto (-1)^2 - 3(-1) = 1+3 = 4$

$0 \mapsto 0^2 - 3 \cdot 0 = 0$

$1 \mapsto 1^2 - 3 \cdot 1 = 1 - 3 = -2$

$2 \mapsto 2^2 - 3 \cdot 2 = 4 - 6 = -2$

$3 \mapsto 3^2 - 3 \cdot 3 = 0$