zad. 6 Franciszek Melinka

x	y		
-1	-16		
0	-1	15	
1	-2	-1	-8
2	5	7	4	-4

$\rightarrow N(x) = -16 + 15(x+1) - 8(x+1)x + 4(x+1)x(x-1)$

$W(x) = a_0T_0(x) + a_1T_1(x) + a_2T_2(x) + a_3T_3(x)$

$T_0(x) = 1$, $T_1(x) = x$, $T_2(x) = 2x^2 - 1$, $T_3(x) = 4x^3 - 3x$

~~$a_0 + a_1$~~ ~~Wiktor~~

$$\begin{cases} a_0 - a_1 + a_2 - a_3 = -16 \\ a_0 - a_2 = -1 \Rightarrow a_2 = a_0 + 1 \\ a_0 + a_1 + a_2 + a_3 = -2 \\ a_0 + 2a_1 + 7a_2 + 26a_3 = 5 \end{cases}$$

$2a_0 + 2a_2 = -18$

$2a_0 + 1 = -9$

$a_0 = -5$, $a_2 = -4$

Zostaje nam

$$\begin{cases} -a_1 - a_3 = -7 \Rightarrow a_1 = 7 - a_3 \\ 2a_1 + 26a_3 = 38 \end{cases}$$

$24a_3 = 24$

$a_3 = 1$, $a_1 = 6$

$W(x) = -5T_0(x) + 6T_1(x) - 4T_2(x) + 1 \cdot T_3(x)$

$a_0 = -5$
$a_1 = 6$
$a_2 = -4$
$a_3 = 1$