$z_{xx}(x=0; y=0) = 6 \cdot 0 - 6 = -6 < 0 \rightsquigarrow$ lok. Maximum

$z_{xx}(x=0; y=2) = 6 \cdot 2 - 6 = 6 > 0 \rightsquigarrow$ lok. Minimum

$z_1 = 1$

$z_2 = 32 - 48 + 1 = -15$

$z_3 = 12 + 4 - 12 - 12 + 1 = -7$

$z_4 = -7$

$P_1(0; 0; 1) \rightarrow$ Maximum

$P_2(0; 2; -15) \rightarrow$ Minimum

$P_3(2; 1; -7) \rightarrow$ Sattelpunkt

$P_4(-2; 1; -7) \rightarrow$ Sattelpunkt