



Randwerte:

$$V_{10} = 0 \quad v_{10}:0$$

$$M_{10} = M \quad m_{10}:M$$

$$\varphi_{10} = 0 \quad \text{phi}_{10}:0$$

$$w_{10} = 0 \quad w_{10}:0$$

$$V_{20} = 0 \quad v_{10}:0$$

$$M_{20} = 0 \quad m_{20}:0$$

$$\varphi_{20} = \frac{Ma}{EI} \quad \text{phi}_{20}:Ma/(EI)$$

$$w_{20} = \frac{-Ma^2}{2EI} \quad w_{20}:-M*a^2/(2*EI)$$

Funktionsgleichungen:

$$V(x_1) = 0 \quad v_{x1}:0$$

$$M(x_1) = M \quad m_{x1}:M$$

$$\varphi(x_1) = \frac{Mx_1}{EI} \quad \text{phi}_{x1}:M*x_1/(EI)$$

$$w(x_1) = \frac{-Mx_1^2}{2EI} \quad w_{x1}:-M*x_1^2/(2*EI)$$

$$V(x_2) = 0 \quad v_{x2}:0$$

$$M(x_2) = 0 \quad m_{x2}:0$$

$$\varphi(x_2) = \frac{Ma}{EI} \quad \text{phi}_{x2}:M*a/(EI)$$

$$w(x_2) = \frac{-M(2ax_2+a^2)}{2EI} \quad w_{x2}:-M*(2*a*x_2+a^2)/(2*EI)$$

Extremwerte:

$$M_{max} = M_{10} = M \quad m_{max}:M$$

$$w_{max} = w(x_2 = b) = \frac{-M(2ab+a^2)}{2EI} \quad w_{max}:-M*(2*a*b+a^2)/(2*EI)$$