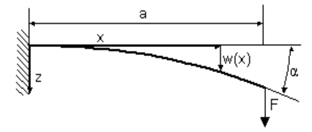
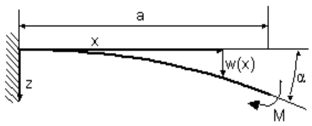
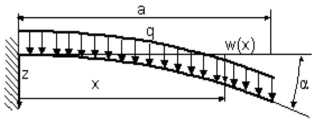
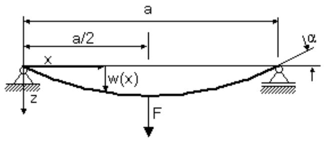
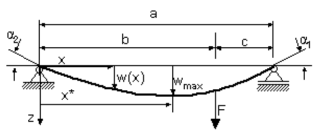
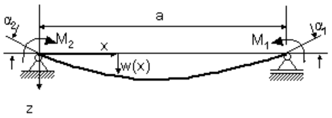
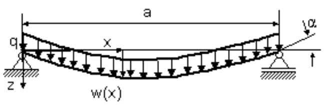
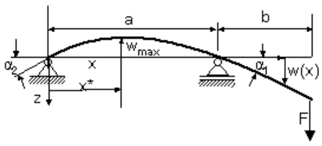
	Belastungsfall	Biegelinie	Durchbiegung	Neigung $w' = \tan\alpha$
1		$w(x) = \frac{1}{6}\frac{F}{EI}ax^2\left(3-\frac{x}{a}\right)$	$w(a) = \frac{Fa^3}{3EI}$	$w'(a) = \frac{Fa^2}{2EI}$
2		$w(x) = \frac{M}{2EI}x^2$	$w(a) = \frac{Ma^2}{2EI}$	$w'(a) = \frac{Ma}{EI}$
3		$w(x) = \frac{qa^4}{24EI}\left(6\frac{x^2}{a^2}-4\frac{x^3}{a^3}+\frac{x^4}{a^4}\right)$	$w(a) = \frac{qa^4}{8EI}$	$w'(a) = \frac{qa^3}{6EI}$
4		$x \le \frac{a}{2}$ $w(x) = \frac{Fa^3}{16EI}\left(\frac{x}{a}-\frac{4x^3}{3a^3}\right)$	$w\left(\frac{a}{2}\right) = \frac{Fa^3}{48EI}$	$w'(a) = \frac{Fa^2}{16EI}$
5		$0 \le x \le b$ $w(x) = \frac{Fbc^2}{6EI}\frac{x}{a}\left(1+\frac{a}{c}-\frac{x^2}{bc}\right)$ $b \le x \le a$ $w(x) = \frac{Fcb^2}{6EI}\frac{a-x}{a}\left(\frac{a+b}{b}-\frac{(x-a)^2}{bc}\right)$	$w(b) = \frac{F}{3EI}\frac{b^2c^2}{a}$ für $b > c$ gilt: $x^* = b\sqrt{\frac{a+c}{3b}}$ $w_{max} = w(b)\frac{a+c}{3c}\frac{x^*}{a}$	$w'(0) = \frac{w(b)}{2b}\left(1+\frac{a}{c}\right)$ $w'(a) = \frac{w(b)}{2c}\left(1+\frac{a}{b}\right)$
6		$w(x) = \frac{M_1a^2}{6EI}\left(\frac{x}{a}-\frac{x^3}{a^3}\right)+$ $+\frac{M_2a^2}{6EI}\left(2\frac{x}{a}-3\frac{x^2}{a^2}+\frac{x^3}{a^3}\right)$	für $M_1 = M_2$ gilt: $w_{max} = \frac{M_1a^2}{8EI}$	$w'(0) = \frac{a}{6EI}(2M_2+M_1)$ $w'(a) = \frac{a}{6EI}(2M_1+M_2)$
7		$w(x) = \frac{qa^4}{24EI}\frac{x}{a}\left[1-2\left(\frac{x}{a}\right)^2+\left(\frac{x}{a}\right)^3\right]$	$w_{max} = w\left(\frac{a}{2}\right) = \frac{5qa^4}{384EI}$	$w'(a) = \frac{qa^3}{24EI}$
8		$0 \le x \le a$ $w(x) = -\frac{Fabx}{6EI}\left(1-\frac{x^2}{a^2}\right)$ $a \le x \le a+b$ $w(x) =$ $\frac{Fa^2(x-a)}{6EI}\left(\frac{2b}{a}+\frac{3b(x-a)}{a^2}-\frac{(x-a)^2}{a^2}\right)$	$w(a+b) = \frac{Fab^2}{3EI}\left(1+\frac{b}{a}\right)$ $w_{max} = \frac{Fa^2b}{9\sqrt{3}EI}$ $x^* = \frac{a}{\sqrt{3}}$	$w'(0) = \frac{Fab}{6EI}$ $w'(a) = 2w'(0)$ $w'(a+b) = \frac{Fb^2}{2EI}\left(1+\frac{2a}{3b}\right)$