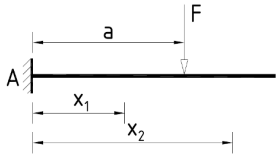
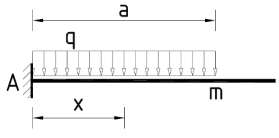
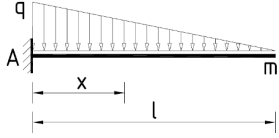
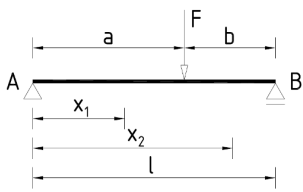
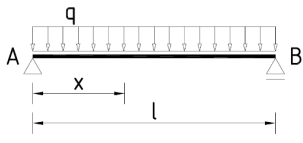
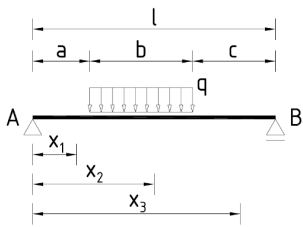
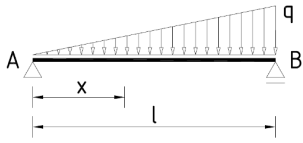
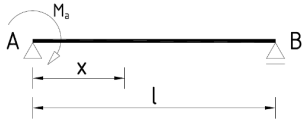
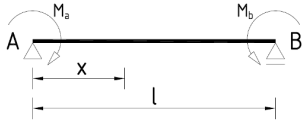
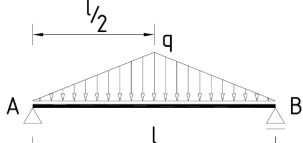
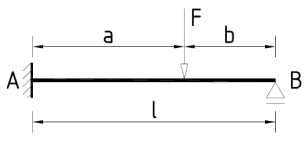
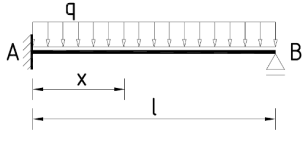
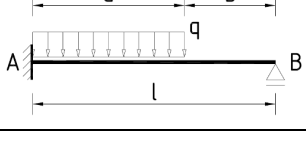
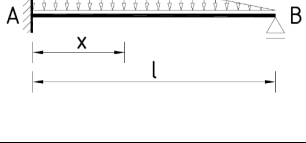
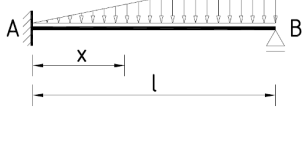
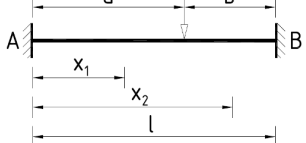
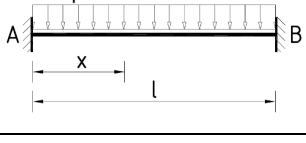
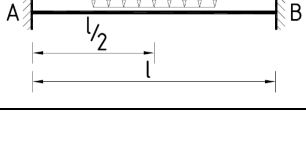
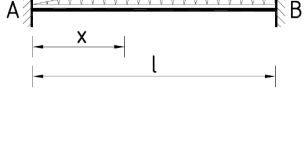


Load case	Moment	Reactions	Deflection
	$M_{x_1} = -F \cdot (a - x_1)$ $M_A = F \cdot a$	$A = -F$	$\delta_p = \frac{F \cdot a^3}{3 \cdot E \cdot I}$
	$M_x = -\frac{q}{2} \cdot (a - x)^2$ $M_A = -\frac{q \cdot a^2}{2}$	$A = -q \cdot a$	$\delta_m = \frac{q \cdot a^4}{8 \cdot E \cdot I}$
	$M_x = -\frac{q}{6 \cdot l} \cdot (l - x)^3$ $M_A = -\frac{q \cdot l^2}{6}$	$A = -\frac{q \cdot l}{2}$	$\delta_m = \frac{q \cdot l^4}{30 \cdot E \cdot I}$
	$M_{x_1} = \frac{F \cdot b}{l} \cdot x_1$ $M_{x_2} = \frac{F \cdot a}{l} \cdot (l - x_2)$ $M_F = \frac{F \cdot a \cdot b}{l}$	$A = -\frac{F \cdot b}{l}$ $B = -\frac{F \cdot a}{l}$	$\delta_F = \frac{F \cdot a^2 \cdot b^2}{3 \cdot E \cdot I \cdot l}$
	$M_x = \frac{q \cdot l^2}{2} \cdot \left(\frac{x}{l} - \frac{x^2}{l^2} \right)$ $M_{l/2} = \frac{q \cdot l^2}{8}$	$A = B = -\frac{q \cdot l}{2}$	$\delta_{l/2} = \frac{5 \cdot q \cdot l^4}{384 \cdot E \cdot I}$
	$M_{x_1} = A \cdot x_1$ $M_{x_2} = A \cdot x_2 - q \cdot \frac{(x_2 - a)^2}{2}$ $M_{x_3} = B \cdot (l - x_3)$ $M_{\max} = A \cdot a + \frac{a^2}{2 \cdot q}$	$A = -\frac{q \cdot b}{2 \cdot l} \cdot (2 \cdot c + b)$ $B = -\frac{q \cdot b}{2 \cdot l} \cdot (2 \cdot a + b)$	
	$M_x = \frac{q \cdot l^2}{6} \cdot \left(\frac{x}{l} - \frac{x^3}{l^3} \right)$ $M_{\max} = 0,064 \cdot q \cdot l^2$ $x = 0,577 \cdot l$	$A = -\frac{q \cdot l}{6}$ $B = -\frac{q \cdot l}{3}$	$\delta_{\max} = 0,00652 \cdot \frac{q \cdot l^4}{E \cdot I}$ $x = 0,519 \cdot l$
	$M_x = M_a \cdot \left(1 - \frac{x}{l} \right)$	$A = -\frac{M_a}{l}$ $B = +\frac{M_a}{l}$	$\delta_{\max} = 0,064 \cdot \frac{M_a \cdot l^2}{E \cdot I}$
	$M_x = M_a \cdot \left(1 - \frac{x}{l} \right) + M_b \cdot \frac{x}{l}$	$A = \frac{M_b - M_a}{l}$ $B = \frac{M_a - M_b}{l}$	
	$M_{l/2} = \frac{q \cdot l^2}{12}$	$A = B = -\frac{q \cdot l}{4}$	$\delta_{l/2} = \frac{q \cdot l^4}{120 \cdot E \cdot I}$

Load case	Moment	Reactions	Deflection
	$M_F = \frac{F \cdot a^2 \cdot b}{2 \cdot l^2} \cdot \left(2 + \frac{b}{l} \right)$ $M_A = -\frac{F \cdot l}{2} \cdot \left(\frac{b}{l} - \frac{b^3}{l^3} \right)$	$A = -\frac{F \cdot b}{2 \cdot l} \cdot \left(3 - \frac{b^2}{l^2} \right)$ $B = -\frac{F \cdot a^2}{2 \cdot l^2} \cdot \left(3 - \frac{a}{l} \right)$	$\delta_F = \frac{F \cdot a^3}{12 \cdot E \cdot l} \cdot \left(3 - 5 \cdot \frac{a}{l} + \frac{a^2}{l^2} + \frac{a^3}{l^3} \right)$
	$M_x = \frac{q \cdot (l-x)}{8} \cdot (4 \cdot x - l)$ $M_A = -\frac{q \cdot l^2}{8}$ $M_{\max} = 0,0703 \cdot q \cdot l^2$ $x = 0,625 \cdot l$	$A = -\frac{5}{8} \cdot q \cdot l$ $B = -\frac{3}{8} \cdot q \cdot l$	$\delta_{\max} = \frac{q \cdot l^4}{185 \cdot E \cdot l}$ $x = 0,4215 \cdot l$
	$M_A = -\frac{q \cdot a^2}{8} \cdot \left(2 - \frac{a}{l} \right)^2$	$A = -q \cdot a - B$ $B = -\frac{q \cdot a^2}{2 \cdot l} + \frac{M_A}{l}$	
	$M_x = \frac{q \cdot (l-x)}{30 \cdot l} \cdot \left[3 \cdot l^2 - 5 \cdot (l-x)^2 \right]$ $M_A = -\frac{1}{15} \cdot q \cdot l^2$ $M_{\max} = 0,0298 \cdot q \cdot l^2$ $x = 0,553 \cdot l$	$A = -\frac{2}{5} \cdot q \cdot l$ $B = -\frac{1}{10} \cdot q \cdot l$	$\delta_x = \frac{q \cdot l \cdot (l-x)}{120 \cdot E \cdot l} \cdot (2 \cdot l \cdot x - x^2)$
	$M_x = \frac{q}{120 \cdot l} \cdot (27 \cdot x \cdot l^2 - 20 \cdot x^3 - 7 \cdot l^3)$ $M_A = -\frac{7}{120} \cdot q \cdot l^2$ $M_{\max} = 0,0419 \cdot q \cdot l^2$ $x = 0,671 \cdot l$	$A = -\frac{9}{40} \cdot q \cdot l$ $B = -\frac{11}{40} \cdot q \cdot l$	$\delta_x = \frac{q \cdot x^2}{240 \cdot E \cdot l} \cdot \left(7 \cdot l^2 - 9 \cdot x \cdot l + \frac{2 \cdot x^3}{l} \right)$
	$M_F = \frac{2 \cdot F \cdot a^2 \cdot b^2}{l^3}$ $M_A = -\frac{F \cdot a \cdot b^2}{l^2}$ $M_B = -\frac{F \cdot a^2 \cdot b}{l^2}$	$A = -F \cdot \frac{b^2}{l^2} \cdot \left(1 + 2 \cdot \frac{a}{l} \right)$ $B = -F \cdot \frac{a^2}{l^2} \cdot \left(1 + 2 \cdot \frac{b}{l} \right)$	$\delta_F = \frac{q \cdot a^3 \cdot b^3}{3 \cdot E \cdot l \cdot l^3}$
	$M_{l/2} = \frac{q \cdot l^2}{24}$ $M_A = M_B = -\frac{q \cdot l^2}{12}$	$A = B = -\frac{q \cdot l}{2}$	$\delta_{l/2} = \frac{q \cdot l^4}{384 \cdot E \cdot l}$
	$M_{l/2} = \frac{q \cdot l \cdot a}{24} \cdot \left(3 - 3 \cdot \frac{a}{l} + \frac{a^2}{l^2} \right)$ $M_A = M_B = \frac{q \cdot l \cdot a}{24} \cdot \left(3 - \frac{a^2}{l^2} \right)$	$A = B = -\frac{q \cdot a}{2}$	
	$M_x = \frac{q \cdot l^2}{60} \cdot \left(-2 + 9 \cdot \frac{x}{l} - 10 \cdot \frac{x^3}{l^3} \right)$ $M_A = -\frac{q \cdot l^2}{30}$ $M_B = -\frac{q \cdot l^2}{20}$ $M_{\max} = \frac{q \cdot l^2}{46,6}$ $x = 0,548 \cdot l$	$A = -\frac{3}{20} \cdot q \cdot l$ $B = -\frac{7}{20} \cdot q \cdot l$	$\delta_x = \frac{q \cdot l^2 \cdot x^2}{120 \cdot E \cdot l} \cdot \left(2 - 3 \cdot \frac{x}{l} + \frac{x^3}{l^3} \right)$