

Design Variables	
Modulus of Elasticity (psi, N/mm <sup>2</sup> ) E =	35000000.00
Moment of Inertia (in <sup>4</sup> , mm <sup>4</sup> ) I =	61.900
Distance to Neutral Axis (in, mm) n =	4.070
Line Load (lb/in, N/mm) w =	50.000
Length (in, mm) a =	25.000
Length (in, mm) c =	25.000
Length (in, mm) d =	25.000
Length (in, mm) x =	20.000
Results	
Total Load (lb, N) W =	1250.000
Length (in, mm) b =	50.000
Length (in, mm) L =	75.000
Reaction R <sub>A</sub> (lbs, N) =	399.306
Reaction R <sub>B</sub> (lbs, N) =	850.694
Shear Load @ x <= d V <sub>x</sub> (lbs, N) =	399.306
Shear Load @ d < x < (d+c) V <sub>x</sub> (lbs, N) =	649.306
Shear Load @ x >= (d+c) V <sub>x</sub> (lbs, N) =	-850.694
Moment M <sub>b</sub> (lbs-in, N-mm) =	16927.083
Moment M <sub>x</sub> @ x <= d (lbs-in, N-mm) =	7986.111
Moment M <sub>x</sub> @ d < x <= (d+c) (lbs-in, N-mm) =	7361.111
Moment M <sub>x</sub> @ (d+c) < x <= L (lbs-in, N-mm) =	29861.111
Moment Max @ x = (d+Ra/w) (lbs-in, N-mm) =	11577.088
Moment M <sub>x</sub> @ x = L (lbs-in, N-mm) =	-16927.083
Deflection y <sub>x</sub> @ x <= d (in, mm) =	-1.7075e-3
Deflection y <sub>x</sub> @ d < x <= (d+c) (in, mm) =	-1.0573e-1
Deflection y <sub>x</sub> @ x > (d+c) (in, mm) =	7.8949e-1
Slope θ <sub>A</sub> (radian) =	-9.766e-5