

Single and Continuous-Span Beam Analysis Worksheet

Input Data:

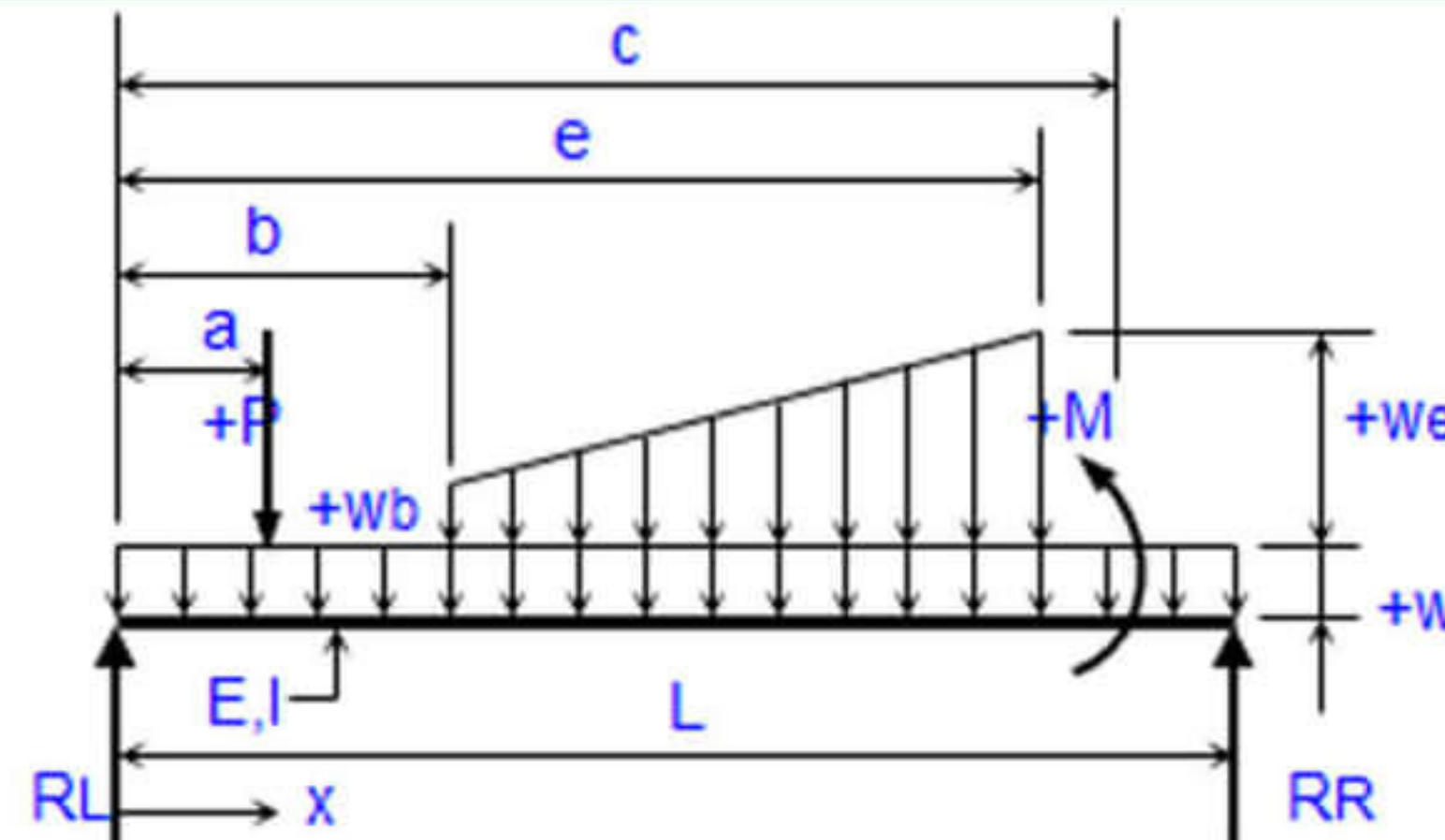
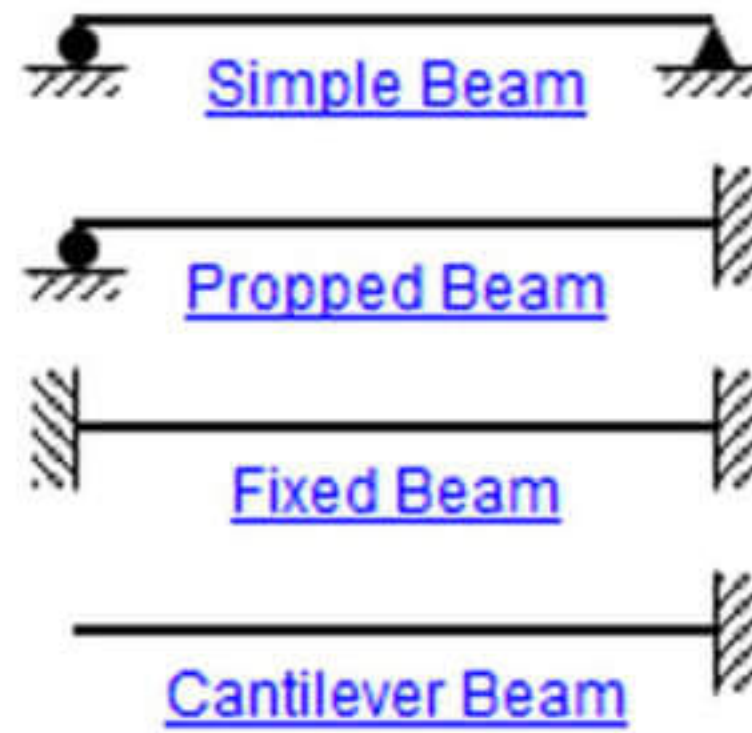
Beam Data:

Span Type?	Simple
Span, L =	20.0000 ft.
Modulus, E =	29000 ksi
Inertia, I =	391.00 in. ⁴

Beam Loadings:

Full Uniform:

w = 0.0500 kips/ft.



Nomenclature

Results:

Reactions:

RL =	10.50 k	RR =	10.50 k
ML =	N.A.	MR =	N.A.

Maximum Moments:

+M(max) =	102.50 ft-k	@ x =	10.00 ft.
-M(max) =	0.00 ft-k	@ x =	0.00 ft.

Maximum Deflections:

-Δ(max) =	-0.524 in.	@ x =	10.00 ft.
+Δ(max) =	0.000 in.	@ x =	0.00 ft.
Δ(ratio) =	L/458		

Shear Diagram



Steel Beam:

Size:	W12x50
Ix =	391.00 in. ⁴
Iy =	56.30 in. ⁴

User Designated Points:

x1 =	0.0000 ft.
x2 =	0.0000 ft.

Results for User Designated Points:

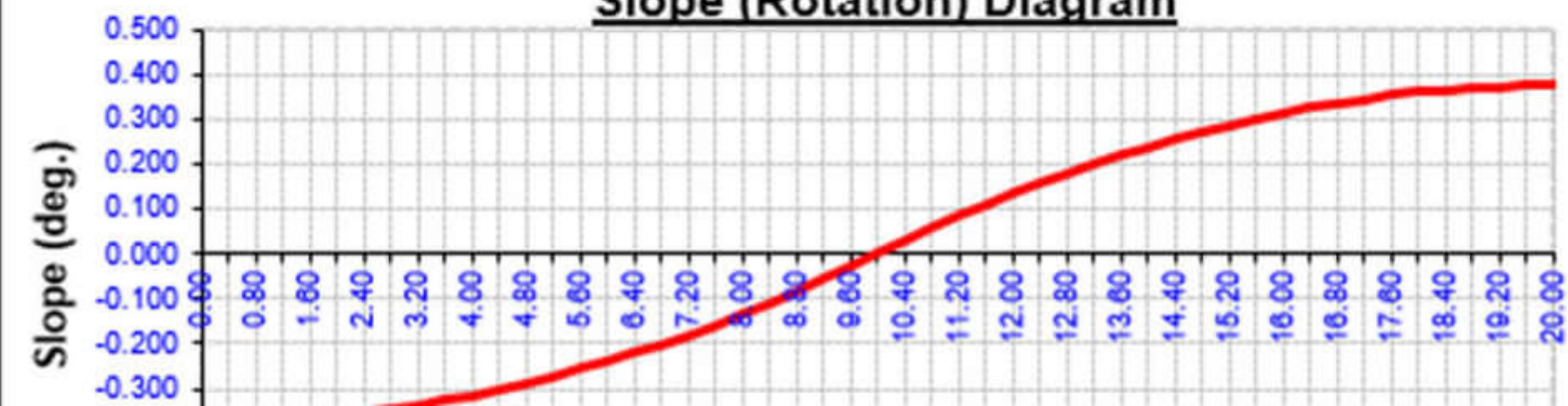
For x1:

Vx1 =	10.50	kips
Mx1 =	0.00	ft-kips
θx1 =	-0.3759	deg.
Δx1 =	0.0000	in.

For x2:

Vx2 =	10.50	kips
Mx2 =	0.00	ft-kips
θx2 =	-0.3759	deg.
Δx2 =	0.0000	in.

Slope (Rotation) Diagram



Point Loads:

	a (ft.)	P (kips)
#1:	10.0000	20.00
#2:		
#3:		
#4:		
#5:		
#6:		
#7:		
#8:		
#9:		