

Simply supported beam: UDL plus one point load

Enter L, w, P and a in row 1 (columns I–L); columns B–D give shear and moment at each x.

x	Shear V	Moment M	Notes					L	w	P	a
0	28.33	0						6	5	20	2
0.3	26.83	8.28									
0.6	25.33	16.1									
0.9	23.83	23.48									
1.2	22.33	30.4									
1.5	20.83	36.88									
1.8	19.33	42.9									
2.1	-2.17	46.48									
2.4	-3.67	45.6									
2.7	-5.17	44.27									
3	-6.67	42.5									
3.3	-8.17	40.27									
3.6	-9.67	37.6									
3.9	-11.17	34.48									
4.2	-12.67	30.9									
4.5	-14.17	26.88									
4.8	-15.67	22.4									
5.1	-17.17	17.48									
5.4	-18.67	12.1									
5.7	-20.17	6.28									
6	-21.67	0									
	8.33	40									
	8.33	40									
	8.33	40									
	8.33	40									
	8.33	40									

x	Shear V	Moment M	Notes					L	w	P	a
	8.33	40									
	8.33	40									
	8.33	40									
	8.33	40									
	8.33	40									
	8.33	40									
	8.33	40									
	8.33	40									
	8.33	40									
	8.33	40									
	8.33	40									