

Masterclass Event No.	CMS ID Run/Event/LS	Event Type (check one)				Calculated Mass (GeV)	Rounded Z Mass (GeV)
		Z	W - elec	W - muon	Zoo		
1	148031/230943441/272					85	
2	146944/116354934/198					74.9	
3	146944/313021858/331					79.2	
4	146944/561461169/510					65.2	
5	148031/214079496/251					93.6	
6	146944/585164101/528					78.8	
7	146944/583828722/527					79.6	
8	148031/231860047/273					90	
9	146944/231453642/275					83.1	
10	146944/115180352/197					71.1	
11	146944/576878839/521					78.5	
12	148031/21658042/26					89.9	
13	146944/324254753/339					58.5	
14	146944/324013687/339					25.1	
15	146944/573590151/519					68.3	
16	146944/389287364/385					36.6	
17	148031/230464973/271					90	
18	146944/381251186/379					67.3	
19	148031/232848255/274					94.2	
20	146944/334014428/346					63.1	
21	146511/41795256/53					7.8	
22	146944/312785032/331					67.2	
23	146944/576379108/521					72	
24	146944/231165668/275					47.8	
25	146944/561230564/510					58.2	
26	146944/315756136/333					61.4	
27	146944/112800006/195					80.5	
28	146944/231716699/275					68.2	
29	148031/214742636/252					68.3	
30	146944/382920949/380					85.5	
31	146944/574925968/520					68.7	
32	146944/563117636/511					56.5	
33	146944/580227606/524					58.2	
34	146944/402676797/394					66.1	
35	148031/233839666/276					90.5	
36	146944/569087373/516					84.6	
37	146944/231940267/276					67	
38	146944/570327999/517					58.7	
39	146944/562616183/511					69.1	
40	146944/381284757/379					71.3	

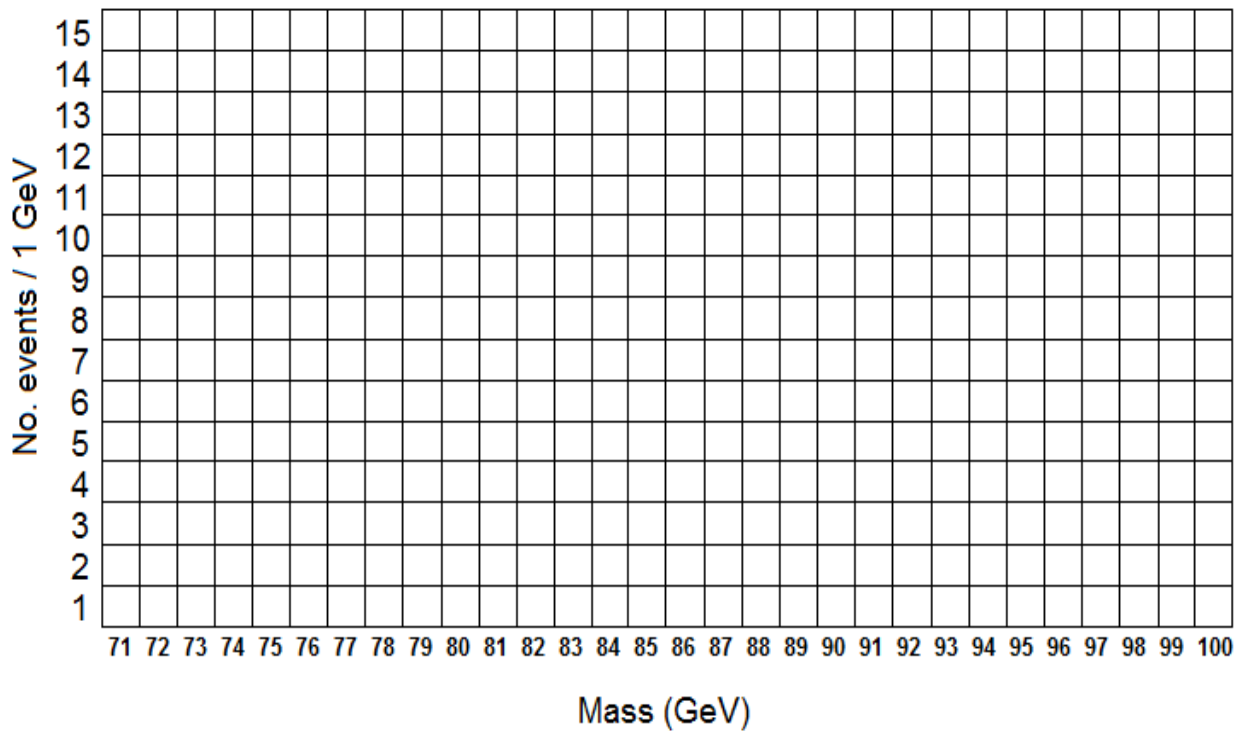
Count the total number of W-electron candidates and the total number of W-muon candidates.

Calculate electron-to-muon ratio:

No. e	No. $\mu$	e/ $\mu$

*Contribute your numbers of e and  $\mu$  to group totals.*

Your Z mass plot:



Place an X in the appropriate mass bin for each event. Start from the bottom so that the vertical axis represents the number of events in that bin.

*Contribute the total number of events in each bin to the group mass plot.*