CMS Masterclass-out-of-the-box **Data Tally Sheet** **Data set 2**

Masterclass Event No.	CMS ID Run/Event/LS	Event Type (check one) Z	W - elec	W - muon	Zoo	Calculated Mass (GeV)	Rounded Z Mass (GeV)
41	148031/139707779/162					89.1	
42	146944/276425756/306					59.3	
43	146944/563023587/511					68.6	
44	146944/389750087/385					66.8	
45	148031/217624774/256					87.7	
46	146944/335858099/347					70.3	
47	146944/568758047/515					90.1	
48	146944/578965775/523					71.4	
49	146944/382475088/380					34.1	
50	146944/274732991/305					63.6	
51	146944/380434209/379					71	
52	146511/44013937/56					30.2	
53	147390/633514433/801					4	
54	146944/565436071/513					77.1	
55	146944/573466660/519					60.5	
56	146944/581051639/524					80.7	
57	146944/655119930/580					65.6	
58	146944/382431311/380					22.1	
59	146944/196451506/251					46.7	
60	142136/126243064/205					95.1	
61	146944/580953773/524					68.7	
62	146944/578490226/523					77.2	
63	146944/276157709/306					82	
64	146944/231522905/275					71.8	
65	146944/231496160/275					46	
66	146944/579625430/523					84.2	
67	148031/138291711/160					85.8	
68	146944/290515921/316					63.1	
69	146944/572461556/518					63	
70	147114/491975900/490					44.9	
71	148031/221572646/261					91.3	
72	146944/574049994/519					47.7	
73	142035/310514396/719					89.9	
74	146944/124734869/203					66.8	
75	146944/291320036/316					44.8	
76	146944/562337391/511					64	
77	146944/231819301/275					68.9	
78	148031/138761945/161					91.1	
79	148031/233053929/275					90.2	
80	146944/317329277/334					81.3	

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

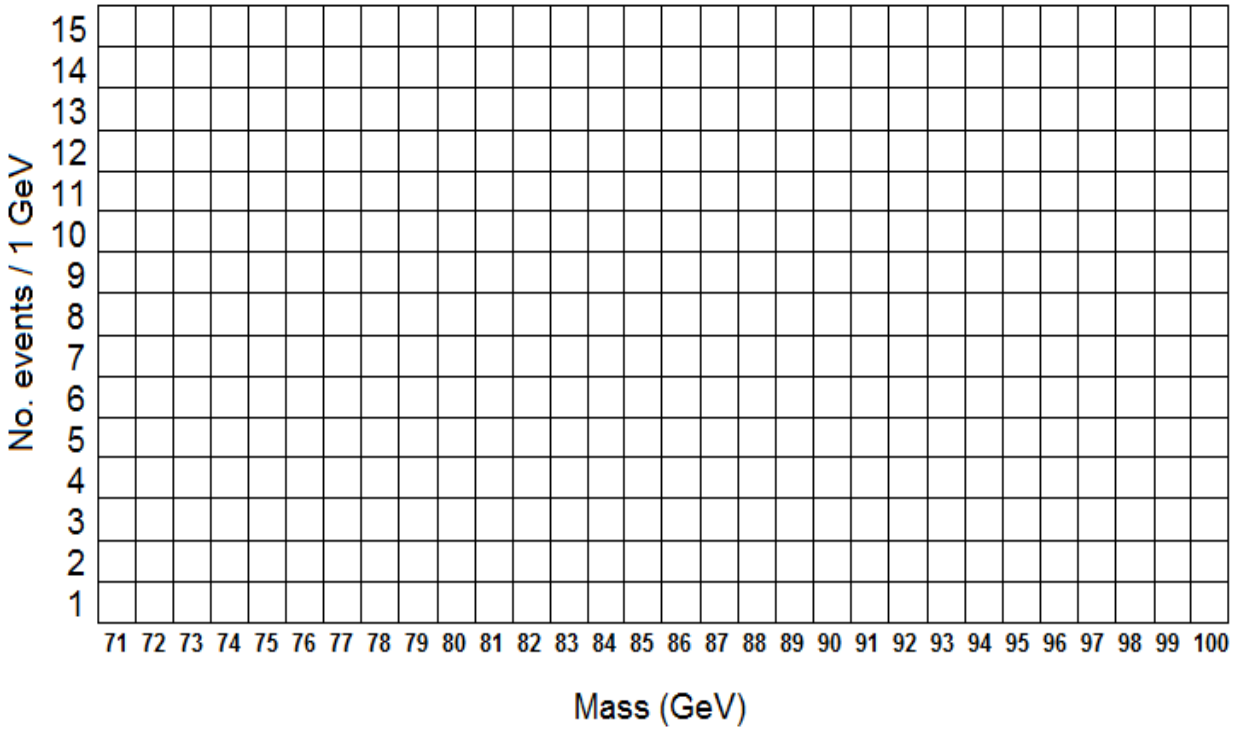
CMS Masterclass-out-of-the-box **Data Tally Sheet** **Data set 2**

Calculate electron-to-muon ratio:

No. e	No. μ	e/μ

Contribute your numbers of e and μ 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.