

Science Olympiad
Golden Gate Invitational

January 31, 2026

Machines C Test Masses



Four sets of test masses were prepared for the tournament using 50 g and 100 g calibrated weights and 1/4" steel ball bearings in 2.75" by 4" burlap sacks with a flexible loop made from string and were calibrated using a scale with ± 0.01 g precision.

Their measurements are tabulated below in grams.

Set #	Mass A	Mass B	Mass C
1	20.77	182.28	189.09
2	20.79	182.31	189.10
3	20.83	182.31	189.10
4	20.83	182.32	189.14
Average	20.81	182.31	189.11

The target mass ratios were $A/B = 0.114$ and $B/C = 0.964$.