

Aluminum Piece Description	Mass / $\pm 0.02$ g				
	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5
Flat Slab	32.20	32.10	32.12	32.15	32.18
Large Block	88.35	88.88	88.98	88.55	88.78
Small, Skinny Cylinder	2.65	2.69	2.69	2.71	2.70
Short Cylinder	2.74	2.76	2.73	2.72	2.74
Tall, Medium Cylinder (with hook)	70.87	70.79	70.13	70.49	70.53
Large Cylinder	199.31	200.29	200.15	200.07	199.45
Tall, narrow medium cylinder (no hook)	29.08	29.11	29.10	29.11	29.05
Small block	5.27	5.26	5.27	5.23	5.27

Table 2: Dimensions of Various Aluminum Pieces

Aluminum Piece Description	Dimension Measured	Dimension / $\pm 0.05$ cm				
		Trial 1	Trial 2	Trial 3	Trial 4	Trial 5
Flat Slab	Length	7.60	7.62	7.65	7.70	7.65
	Width	0.50	0.45	0.60	0.65	0.60
	Height	2.40	2.50	2.60	2.60	2.50
Large Block	Length	3.15	3.20	3.19	3.10	3.10
	Width	3.15	3.10	3.10	3.20	3.10
	Height	3.15	3.10	3.10	3.10	3.10
Small, Skinny Cylinder	Diameter	0.50	0.50	0.50	0.45	0.45
	Height	5.60	5.50	5.60	5.55	5.59
Short Cylinder	Diameter	0.90	1.00	1.00	1.00	0.90
	Height	1.40	1.40	1.40	1.40	1.40
Tall, Medium Cylinder (with hook)	Diameter	1.70	1.70	1.90	1.85	1.70
	Height	8.60	8.60	8.70	8.60	8.60
Large Cylinder	Diameter	4.35	4.48	4.41	4.50	4.40
	Height	4.19	4.67	4.69	4.70	4.65
Small block	Length	1.20	1.22	1.21	1.20	1.20
	Width	1.20	1.22	1.21	1.20	1.25
	Height	1.20	1.20	1.21	1.20	1.20
Tall, narrow medium cylinder (no hook)	Diameter	1.25	1.20	1.20	1.20	1.20
	Height	8.40	8.45	8.40	8.30	8.40

Table 3: Average Aluminum Piece Masses, with uncertainties

Description	Average Mass		
	/ g	±	g
Flat Slab	32.2	±	0.1
Large Block	88.7	±	0.3
Small, Skinny Cylinder	2.69	±	0.03
Short Cylinder	2.74	±	0.02
Tall, Medium Cylinder (with hook)	70.6	±	0.4
Large Cylinder	199.9	±	0.5
Tall, narrow medium cylinder (no hook)	29.09	±	0.03
Small block	5.3	±	0.02

Table 4: Average Dimensions (length, width, height, diameter) of aluminum pieces

Description	Average Length			Average Width			Average height			Average diameter		
	/ cm	±	cm	/ cm	±	cm	/ cm	±	cm	/ cm	±	cm
Flat Slab	7.64	±	0.1	0.6	±	0.1	2.5	±	0.1		±	
Large Block	3.15	±	0.05	3.1	±	0.1	3.11	±	0.05		±	
Small, Skinny Cylinder		±			±		5.57	±	0.05	0.48	±	0.03
Short Cylinder		±			±		1.40	±	0.05	0.96	±	0.05
Tall, Medium Cylinder (with hook)		±			±		8.62	±	0.03	1.8	±	0.1
Large Cylinder		±			±		4.58	±	0.05	4.43	±	0.08
Tall, narrow medium cylinder (no hook)		±			±		8.39	±	0.07	1.21	±	0.03
Small block	1.21	±	0.05	1.22	±	0.05	1.20	±	0.05		±	

Table 5: Calculated Volumes of Aluminum Blocks and Cylinders

Description	Volume	
	/ cm <sup>3</sup>	
Flat Slab	11 ±	2
Large Block	31 ±	1
Small, Skinny Cylinder	1.0 ±	0.1
Short Cylinder	1.0 ±	0.1
Tall, Medium Cylinder (with hook)	21.2 ±	0.1
Large Cylinder	70.53 ±	0.04
Tall, narrow medium cylinder (no hook)	9.65 ±	0.05
Small block	1.8 ±	0.1