

Intel i7-2600

	0.0	1.0	1e10	1e+200	1e-300	1e-42	256	257	1e-320
	Cycle count								
0.0	7.22	7.23	7.25	7.22	7.24	7.27	7.23	7.22	7.24
1.0	7.24	7.22	7.24	7.23	7.23	7.23	7.23	7.23	7.22
1e10	7.23	7.24	7.23	7.25	7.23	7.25	7.24	7.22	7.23
1e+200	7.26	7.26	7.21	7.23	7.22	7.26	7.24	7.24	7.22
1e-300	7.24	7.24	7.21	7.25	7.25	7.27	7.21	7.25	7.22
1e-42	7.23	7.23	7.22	7.23	7.23	7.25	7.26	7.25	7.22
256	7.25	7.26	7.24	7.24	7.26	7.24	7.25	7.23	7.27
257	7.24	7.27	7.25	7.23	7.24	7.23	7.24	7.23	7.23
1e-320	7.22	7.23	7.22	7.25	7.23	7.22	7.23	7.24	7.23

Figure 1: Addition timing for double precision floats on Intel i7-2600

	0.0	1.0	1e10	1e+200	1e-300	1e-42	256	257	1e-320
	Cycle count								
0.0	7.26	7.26	7.24	7.26	7.24	7.24	7.26	7.25	7.24
1.0	7.26	7.26	7.24	7.24	7.23	7.24	7.25	7.25	7.24
1e10	7.23	7.25	7.23	7.24	7.26	7.24	7.23	7.22	7.22
1e+200	7.24	7.24	7.25	7.23	7.23	7.24	7.24	7.23	7.25
1e-300	7.26	7.24	7.24	7.22	7.24	7.24	7.23	7.24	7.22
1e-42	7.22	7.22	7.24	7.24	7.23	7.21	7.23	7.23	7.25
256	7.23	7.27	7.24	7.25	7.25	7.25	7.23	7.23	7.23
257	7.23	7.22	7.29	7.24	7.23	7.23	7.22	7.23	7.25
1e-320	7.23	7.25	7.26	7.27	7.22	7.25	7.25	7.26	7.25

Figure 2: Subtraction timing for double precision floats on Intel i7-2600

	0.0	1.0	1e10	1e+30	1e-30	1e-41	1e-42	256	257
	Cycle count								
0.0	6.34	6.34	6.33	6.35	6.32	6.34	6.36	6.36	6.37
1.0	6.33	6.33	6.34	6.31	6.33	6.32	6.34	6.32	6.33
1e10	6.32	6.31	6.33	6.36	6.34	6.34	6.32	6.37	6.31
1e+30	6.31	6.33	6.32	6.33	6.34	6.33	6.33	6.32	6.32
1e-30	6.33	6.35	6.32	6.33	6.34	6.35	6.32	6.33	6.33
1e-41	6.34	6.32	6.34	6.35	6.35	6.34	6.33	6.33	6.32
1e-42	6.34	6.34	6.31	6.33	6.30	6.32	6.36	6.34	6.34
256	6.33	6.33	6.31	6.32	6.34	6.32	6.32	6.34	6.34
257	6.33	6.33	6.33	6.33	6.32	6.35	6.34	6.33	6.32

Figure 3: Subtraction timing for single precision floats on Intel i7-2600

Dividend	Divisor								
	0.0	1.0	1e10	1e+30	1e-30	1e-41	1e-42	256	257
	Cycle count								
0.0	8.32	8.32	8.33	8.33	8.34	8.35	8.34	8.33	8.31
1.0	8.31	8.32	11.97	11.97	12.03	8.34	8.36	8.31	11.98
1e10	8.31	8.35	11.97	11.96	12.01	8.35	8.34	8.32	12.01
1e+30	8.34	8.32	11.98	12.00	12.00	8.33	8.35	8.32	11.99
1e-30	8.35	8.32	11.98	11.99	12.00	8.34	8.33	8.32	12.00
1e-41	8.33	8.31	8.33	8.32	8.31	8.31	8.35	8.31	8.34
1e-42	8.31	8.32	8.35	8.34	8.39	8.36	8.33	8.33	8.33
256	8.34	8.32	11.95	11.97	11.97	8.34	8.35	8.33	11.97
257	8.32	8.33	11.95	11.97	11.97	8.35	8.33	8.32	11.96

Figure 4: Division timing for single precision floats on Intel i7-2600

Operand	Cycle count
0.0	8.50
1.0	8.46
1e10	12.08
1e+30	12.07
1e-30	12.09
1e-41	8.45
1e-42	8.47
256	8.44
257	12.09

Figure 5: Square root timing for single precision floats on Intel i7-2600

	0.0	1.0	1e10	1e+200	1e-300	1e-42	256	257	1e-320
	Cycle count								
0.0	7.24	7.27	7.24	7.22	7.24	7.23	7.21	7.23	7.24
1.0	7.23	7.23	7.23	7.23	7.24	7.23	7.23	7.22	7.23
1e10	7.23	7.24	7.23	7.23	7.23	7.24	7.22	7.23	7.25
1e+200	7.24	7.23	7.23	7.27	7.24	7.25	7.23	7.27	7.23
1e-300	7.24	7.23	7.23	7.23	7.25	7.24	7.26	7.23	7.22
1e-42	7.23	7.23	7.24	7.23	7.23	7.24	7.23	7.24	7.22
256	7.24	7.24	7.23	7.23	7.22	7.26	7.24	7.25	7.24
257	7.23	7.24	7.23	7.22	7.25	7.25	7.23	7.23	7.23
1e-320	7.23	7.22	7.24	7.24	7.25	7.24	7.24	7.23	7.23

Figure 6: Multiplication timing for double precision floats on Intel i7-2600

	Divisor								
Dividend	0.0	1.0	1e10	1e+200	1e-300	1e-42	256	257	1e-320
	Cycle count								
0.0	8.67	8.68	8.67	8.65	8.66	8.66	8.68	8.70	8.66
1.0	8.68	8.65	19.73	19.74	19.74	19.79	8.67	19.77	8.66
1e10	8.64	8.66	19.71	19.77	19.74	19.69	8.65	19.68	8.66
1e+200	8.65	8.65	19.76	19.71	19.71	19.75	8.71	19.71	8.64
1e-300	8.64	8.66	19.75	19.80	19.75	19.76	8.65	19.77	8.68
1e-42	8.67	8.67	19.72	19.72	19.71	19.72	8.66	19.74	8.65
256	8.69	8.67	19.69	19.73	19.69	19.76	8.68	19.73	8.67
257	8.70	8.67	19.73	19.76	19.76	19.72	8.68	19.72	8.66
1e-320	8.66	8.67	8.66	8.65	8.68	8.67	8.65	8.67	8.67

Figure 7: Division timing for double precision floats on Intel i7-2600

Operand	Cycle count
0.0	8.64
1.0	8.69
1e10	18.54
1e+200	18.50
1e-300	18.50
1e-42	18.45
256	8.64
257	18.46
1e-320	8.67

Figure 8: Square root timing for double precision floats on Intel i7-2600

	0.0	1.0	1e10	1e+30	1e-30	1e-41	1e-42	256	257
	Cycle count								
0.0	6.35	6.33	6.33	6.31	6.37	6.36	6.35	6.31	6.35
1.0	6.32	6.32	6.35	6.37	6.38	6.33	6.35	6.38	6.34
1e10	6.32	6.33	6.35	6.33	6.32	6.35	6.33	6.34	6.35
1e+30	6.34	6.35	6.34	6.33	6.32	6.32	6.31	6.32	6.32
1e-30	6.36	6.33	6.31	6.35	6.35	6.34	6.34	6.34	6.34
1e-41	6.31	6.32	6.36	6.33	6.33	6.59	6.33	6.33	6.35
1e-42	6.33	6.33	6.35	6.33	6.34	6.34	6.32	6.34	6.34
256	6.35	6.34	6.32	6.32	6.34	6.33	6.31	6.35	6.33
257	6.32	6.33	6.32	6.35	6.37	6.34	6.34	6.34	6.36

Figure 9: Addition timing for single precision floats on Intel i7-2600

	0.0	1.0	1e10	1e+30	1e-30	1e-41	1e-42	256	257
	Cycle count								
0.0	6.32	6.32	6.34	6.32	6.33	6.31	6.33	6.34	6.33
1.0	6.34	6.32	6.37	6.34	6.33	6.33	6.35	6.36	6.34
1e10	6.34	6.35	6.32	6.32	6.35	6.33	6.32	6.32	6.32
1e+30	6.36	6.34	6.32	6.32	6.34	6.35	6.33	6.32	6.32
1e-30	6.34	6.33	6.32	6.36	6.32	6.34	6.35	6.33	6.31
1e-41	6.32	6.34	6.31	6.32	6.32	6.38	6.33	6.33	6.34
1e-42	6.36	6.33	6.32	6.32	6.33	6.32	6.32	6.33	6.34
256	6.33	6.33	6.32	6.33	6.32	6.33	6.33	6.33	6.33
257	6.36	6.32	6.34	6.31	6.32	6.32	6.35	6.31	6.33

Figure 10: Multiplication timing for single precision floats on Intel i7-2600

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