

Team:

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Size	ARM (s)	My (s)	Fraction
16	0.00877779	0.069757931	0.882996242
64	0.02289153	6.660790888	1.006629537
256	0.666407141	1322.042354	1.009591844
1024	39.99057166	9271.812281	1.005744309

$$\text{Speedup}_F = T_{my}/T_{arm_E} = 1/(1-F+F/E)$$

- $(1 - F + F/E) = T_{arm_E}/T_{my}$
- $-F + F/E = T_{arm_E}/T_{my} - 1$
- $F * (-1 + 1/E) = T_{arm_E}/T_{my} - 1$
- $F = (T_{arm_E}/T_{my} - 1)/(1/E - 1)$
- $F = (T_{arm_E}/T_{my} - 1)*E/(1 - E)$

Take 64 as an example:

$$(0.02289153/6.660790888-1)*100/(1-100) = 0.99656324145/99 = 1.006629537$$

Expected time for

$$18,709,231,027/(1.41*1997000000) = 6.64444575622$$

$$\%error = (6.64444575622-6.660790888)/6.64444575622*100\% = 0.24\%$$