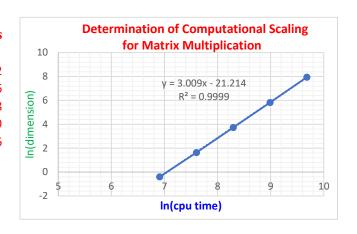
Matr	ix Mı	ıltinl	icati	ion
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slope, m

slope, m

x-axis	y-axis	x-axis	y-axis
Dimension	CPU Time (s)	In(cpu time)	In(dimension)
1000	0.671	6.907755279	-0.398986142
2000	5.1299	7.60090246	1.635086166
4000	41.5589	8.29404964	3.727111698
8000	334.8936	8.987196821	5.813812869
16000	2807.7729	9.680344001	7.940146886
Scaling =	$N^3$		
from graph	$\mathbf{v} = \mathbf{m}\mathbf{x} + \mathbf{b}$		

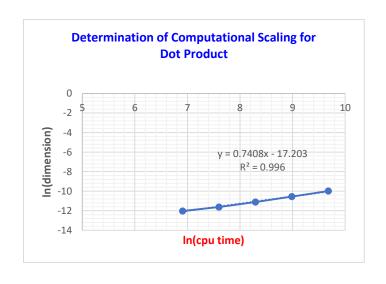
3.009



## **Dot Product (Vector Multiplication)**

x-axis	y-axis	x-axis	y-axis
Dimension	CPU Time (s)	In(cpu time)	In(dimension)
1000	0.000006	6.907755279	-12.02375109
2000	0.000009	7.60090246	-11.61828598
4000	0.000015	8.29404964	-11.10746036
8000	0.000026	8.987196821	-10.55741402
16000	0.000046	9.680344001	-9.986869161
Scaling =	$N^1$		
from graph	y = mx + b		

0.7408



## **Matrix Vector**

x-axis		y-axis	x-axis	y-axis
Dimension	CPU Time (	s)	In(cpu time)	In(dimension)
1000		0.0013	6.907755279	-6.645391015
2000		0.0041	7.60090246	-5.496768305
4000		0.0128	8.29404964	-4.358310108
8000		0.0421	8.987196821	-3.167707538
16000		0.1846	9.680344001	-1.689563957

