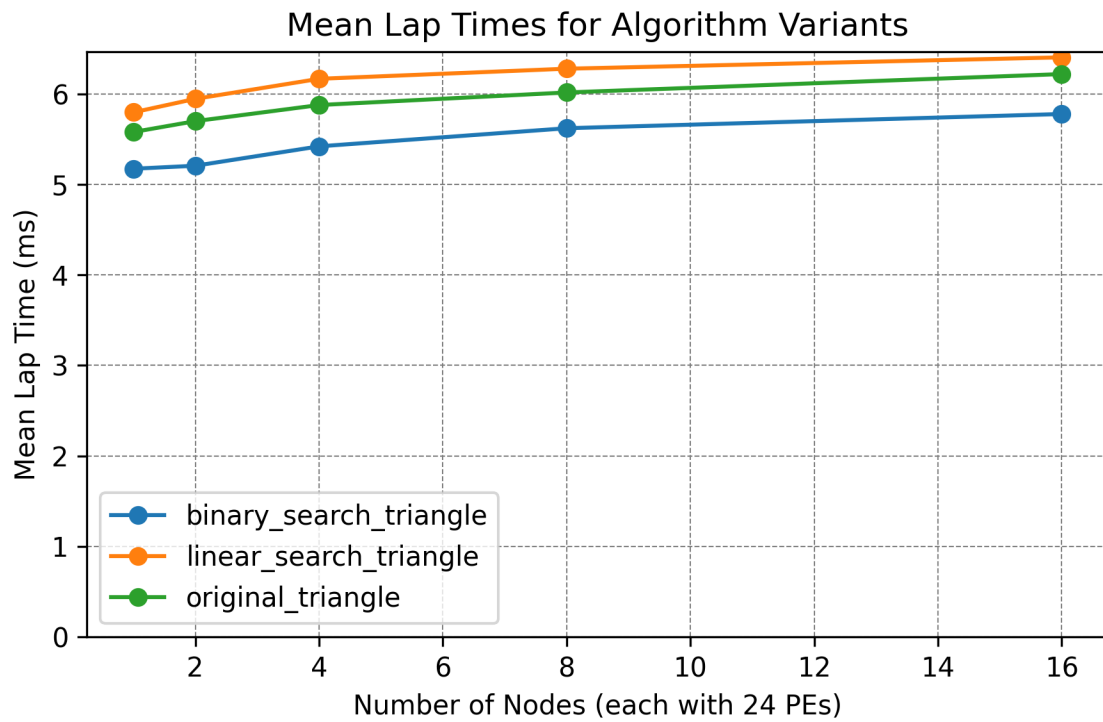


## Graph: Mean Lap Times



## Scaling Analysis

### Scaling Information:

**Variant 'binary\_search\_triangle':** weak scaling (problem size increases with nodes).

**Variant 'linear\_search\_triangle':** weak scaling (problem size increases with nodes).

**Variant 'original\_triangle':** weak scaling (problem size increases with nodes).

## Two-Sample T-Tests

Null Hypothesis: There is no significant difference in mean lap times between 'binary\_search\_triangle' and 'linear\_search\_triangle' variants.

Nodes	t-statistic	p-value	Conclusion
1	-3.66e+02	3.30e-88	Significant
2	-2.95e+02	2.03e-84	Significant
4	-4.10e+01	4.94e-44	Significant
8	-1.96e+01	9.15e-26	Significant
16	-2.72e+01	1.79e-31	Significant

Null Hypothesis: There is no significant difference in mean lap times between 'binary\_search\_triangle' and 'original\_triangle' variants.

Nodes	t-statistic	p-value	Conclusion
1	-2.43e+02	1.94e-76	Significant
2	-3.72e+01	1.88e-26	Significant
4	-2.85e+01	2.04e-35	Significant
8	-1.60e+01	3.04e-22	Significant
16	-1.63e+01	2.39e-23	Significant

Null Hypothesis: There is no significant difference in mean lap times between 'linear\_search\_triangle' and 'original\_triangle' variants.

Nodes	t-statistic	p-value	Conclusion
1	1.68e+02	2.31e-79	Significant
2	1.85e+01	4.30e-18	Significant
4	1.68e+01	3.37e-23	Significant
8	8.40e+00	8.83e-11	Significant
16	8.16e+00	9.07e-11	Significant