**Title:** Approximate trigonometry value by lookup table

**Name(s):** Kasitphoom Thowongs

Student number(s) : 65011328

email address(es): 65011328@kmitl.ac.th

**Collaborator(s):** -

**Aim:** To find the approximate of trigonometry value (in radians) using reference table array for interval of 1 degree.

**Methods:**

*What you did, starting with*

*What equipment you used,*

*What tools you used*

*Steps in your experiment*

*Other relevant details, e.g. precautions taken, difficulties with measurements*

*Data or procedure flow diagrams*

*Program code (if short – otherwise in an appendix)*

**Results:** *Describe, in detail, your results. This will include*

*Observations*

*Actual measurements – table of measurements are recommended*

*Errors in your measurements – usually included in the results table*

*Special observations – problems with results*

**Discussion:** *Discuss your results. Were they expected? Were the results good (i.e. in line with expectations)? Or, were they unusual (i.e. did not conform to expectations)*

**Conclusion:** *Summary of your main results and general comments – results were useful, as expected, interesting and new, difficulties that prevented good results, guides for future work, etc.*

**Acknowledgments:** *Optional, but* ***do not claim work of others as yours*** *.. be safe and ethical and acknowledge it here.*

**Appendix:** *Optional -**Best place for long program code, large data tables, etc.*

**General comments:**

*There is a well known English saying:*

“Brevity is next to godliness”

*Apparently derived from a famous line in Shakespeare’s Hamlet: ‘Brevity is the soul of wit’, spoken by Polonius, in Act 2, Scene 2 of Hamlet.*

*Here, this means, keep your report* ***short and concise****: do not repeat anything and do not add anything that is either obvious or not needed!*

**Results and errors:** *Numbers in your report should be realistic! In most lab experiments, it is hard to achieve better than 1% accuracy. So most results should show,* ***at most****, 3 significant digits. Experiments invariably have errors – that’s why we repeat them, so that we can* ***estimate*** *the error. So writing*

*5.3764 ± 0.3417 <unit – don’t forget it!>*

*is silly, it is physically unrealistic! Further, if your error (the one you calculated from Excel) was 0.3417, the -764 of your result is meaningless! Report this as*

*5.4 ± 0.3 <unit – don’t forget it!>*

*This represents an error of ~6% and is probably a reasonable result.*