MAP4CI **INFORMATION TO PREPARE REFERENCE SHEET FOR EXAM**

Your reference sheet is one 8.5 by 11 piece of paper. You may fold the paper twice to make 8 boxes – 4 on each side.

This will allow one box for each unit and one box for overflow.

NO formulas will be given on the exam.

Be sure to include the following on your reference sheet. You may go on-line to old lessons from Mrs. Behnke's web-site, pull out your paper copy of lessons or use google to find these items to include on your reference sheet.

Be sure to leave space for us to add some examples later on.

Chapter 1 (Unit 1) Measurement
- Area – square, circle, rectangle, trapezoid, including 'net' and 'composite' figures
- Convert units   1 m = 100 cm
- Volume & Surface Area – cylinder, prisms (rectangular and triangular)
- Optimizing – perimeter/area, surface area/volume
- Pythagorean Theorem

Chapter 2 (Unit 2) Trigonometry
- SOHCAHTOA solve for side or angle
- Sine law, Cosine law
- Angles in standard position
- Angle of elevation

Chapter 3 (Unit 3) Two-Variable Statistics
- Difference between one variable and two variable data analysis
- Scatter plot, identify independent and dependent variables
- Correlation (positive, negative)
- Correlation Coefficient
- Line of best fit , interpolation, extrapolation

Chapter 4 (Unit 4) Data Management
- Percentiles, Quartiles – be able to calculate and interpret
- Percent change – be able to calculate
- Statistical Indices (be able to interpret CPI), understand why they are useful
- Be able to interpret accurate within so many percentage points, 19 times out of 20
- Bias (4 types of Survey Bias – sampling, non-response, measurement, response)
- Critical analysis (5 questions to ask)

Chapter 5 (Unit 5) Graphical Models
- Given graph, be able to determine if rate of change is increasing, decreasing, constant, or zero
- First differences, second differences, ratio column and their meanings
- Calculate slope (rate of change)

Chapter 6 (Unit 6) Algebraic Models
- Exponent laws, simplify and evaluate exponential expressions
- Convert from radical form to exponential form
- Solve exponential equations using common base and systematic trial

Chapter 7 (Unit 7) Finance
- Calculate percents
- How many weeks, days, months, etc. in a year. (Bi-weekly is 26 times per year)
- $I = P\,r\,t$ $A = P + I$ $A = P(1+i)^n$ $PV = A(1+i)^{-n}$
- Know how to find i, n, etc.
- Understand the effect of changing the compounding period on a loan or investment