

## Calculus

August 25<sup>th</sup> study sheet

**Due August 29<sup>th</sup>**

There will be a quiz on the following letters on Monday. It will be part **multiple choice** and part **fill in the blank**.

**$\alpha$ ,  $\beta$ ,  $\theta$**  --In Trigonometry, Greek letters are used to represent angles. While any small Greek or regular letter can be used, the most popular are the small letters alpha, beta, and theta.

**$\epsilon$**  --EPSILON (EP-sil-on) The second form of the lower case epsilon is used as the “set membership” symbol.

**$\Pi$ ,  $\pi$**  --PI (PIE) The lower-case Pi is universally used to represent that number which is the ratio of the circumference of a circle to its diameter. The upper-case Pi is used as the “product” symbol.

**$\Sigma$**  --SIGMA (SIG-muh) The capital Sigma is used as the “summation” symbol.

**$\Delta$ ,  $\delta$**  --Delta is used to represent changes. Large  $\Delta$  delta can be used to show relatively large changes. One example is the slope equation: change in y divided by change in x is written  $\Delta y / \Delta x$   
Small delta  $\delta$  is used in Calculus to represent very tiny changes, for example instantaneous slope is  $\delta y / \delta x$ .

**$\zeta$**  --The Riemann zeta function and other zeta functions in mathematics.

**$\rho$**  --The small letter rho is used as the radius in a polar coordinate system.

**$\phi$**  --the small letter phi is used for the golden ratio 1.618... in mathematics, art, and architecture.