A1: Show no work.

z Prof. King believes that writing in complete, coherent sentences is crucial in communicating Mathematics, improves posture, and whitens teeth. Circle one:

True!   Yes!   *What's a sentence?*

a The **slope** of line $3[y-5] = 2[x-2]$ is ....

Point $(-4, y)$ lies on this line, where $y=$ ....

b The four solutions to $[y-2]\cdot y \cdot [y+2] = -1/y$

are $y =$ ....

[*Hint:* Apply the Quadratic Formula to y^2.]

c $\left[\sqrt{3}^{\sqrt{2}}\right]^{\sqrt{8}} =$ .... $\log_8(4)=$ ....

d $\frac{\mathrm{d}}{\mathrm{d}z}\left(\frac{\sin(3z)}{\cos(z+1)}\right) = \frac{f(z)}{g(z)}$ where

$f(z)=$ ....

and $g(z)=$ ....

e For $x > 0$, let $B(x) := x^{\sin(x)}$. Its derivative is

$B'(x)=$ ....

[*Hint:* How is y^z, for $y > 0$, defined in terms of the exponential fnc?]

f For $x > 0$, let $B(x) := x^x$. Hence its derivative is $B'(x) = B(x) \cdot M(x)$, where $M(x)$ equals

.

....

[*Hint:* How is y^z, for $y > 0$, defined ITOf the exponential fnc?]

g Let $g(x) := x^3 + x$. Then $g^{-1}(10)=$ ....

and $[g^{-1}]'(10)=$ ....

h Compute the sum of this geometric series:

$\sum_{n=3}^{\infty} [-1]^n \cdot [3/5]^n =$ ....

A2: Write the uppercase versions of the following Greek letters, along with their names. Example: "α: ...." You fill in: A (*alpha*).

γ: .... λ: .... σ: ....

δ: .... ω: ....

End of Prereq-A

A1:	__ __	90pts
A2:	__ __	20pts
Total:	__ __ __	110pts

Print name ....

Ord: ....