

Algebra 2 Final Exam Formula Sheet

Arithmetic:

Explicit: $a_n = a_1 + d(n - 1)$

Recursive: $a_n = a_{n-1} + d$ where $a_1 = \#$

Sum: $Sum = \frac{n(a_1 + a_n)}{2}$

Geometric:

Explicit: $a_n = a_1 \times r^{n-1}$

Recursive: $a_n = a_{n-1} \times r$ where $a_1 = \#$

Finite Sum: $Sum = a_1 \left(\frac{1 - r^n}{1 - r} \right)$ $r \neq 1$

Infinite Sum: $Sum = \frac{a_1}{1 - r}$

Logs - Change of Base Formula: $\log_b a = \frac{\log a}{\log b}$

Interest Formulas - Compounded: $A = P \left(1 + \frac{r}{n} \right)^{nt}$ Continuous: $A = Pe^{rt}$

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