

A2 Formulas You Need to Know!

Completing the Square: _____

Vertex Form of a Parabola: _____

Equation of a Circle: _____

Parabola Equation using the directrix and focus: _____

Axis of Symmetry: vertex form: _____ Standard form: _____

Average Rate of Change(slope): _____

Recursive Arithmetic Sequence: _____

Recursive Geometric Sequence: _____

Exponential/Log:
Exponential Growth/Decay: _____

Compound Interest: _____

Continuously Compounded Interest: _____

List the log properties:

Probability

Probability Or: _____

Probability And: _____

Conditional Probability(given): _____

Independent Probability: _____

Statistics
MOE: _____

Z score: _____

Normal distribution: _____

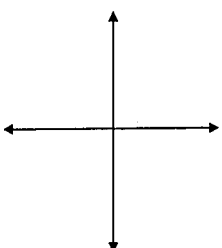
Trig.
Arc length of circle: _____

Trig Graph Equation: _____

Period: _____

List the three trigonometric functions and their reciprocals:

Fill out the quadrants with degree measures and where each function is positive:



A2 Formulas You Need to Know!

Completing the Square: $(\frac{b}{2})^2$

Vertex Form of a Parabola: $y = (x-h)^2 + k$ vertex (h, k)

Equation of a Circle: $(x-h)^2 + (y-k)^2 = r^2$ center (h, k)

Parabola Equation using the directrix and focus: $y = \pm \frac{1}{4p} (x-h)^2 + k$

Axis of Symmetry: vertex form: $x = h$ Standard form: $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

Average Rate of Change (slope): $m = \frac{y_2 - y_1}{x_2 - x_1}$

Recursive Arithmetic Sequence: $a_1 = a_1, a_n = a_{n-1} + d$

Recursive Geometric Sequence: $a_1 = a_1, a_n = a_{n-1} \cdot r$

Exponential/Log:
Exponential Growth/Decay: $y = P(1 \pm r)^t$

Compound Interest: $y = P(1 + \frac{r}{n})^{nt}$

Continuously Compounded Interest: $y = Pe^{rt}$

List the log properties:
 $y = b^x \rightarrow \log_b y = x$

$\log(xy) = \log x + \log y$

$\log(\frac{x}{y}) = \log x - \log y$

$(\log x^y) = y \log x$

Probability:
Probability Or: $P(A \cup B) = P(A) + P(B) - P(A \cap B)$

Probability And: $P(A \cap B) = P(A) \cdot P(B)$

Conditional Probability (given): $P(A|B) = \frac{P(A \cap B)}{P(B)}$

Independent Probability: $P(A|B) = P(A)$

$P(A \cap B) = P(A) \cdot P(B)$
 $P(A \cup B) = P(A) + P(B)$ } indep.

Statistics
MOE: $(95\%) \pm 2 (sd.)$

Z score: $Z = \frac{\# - \text{mean}}{sd.}$

Normal distribution: $\mu, \sigma, \text{cdf}, \text{lower}, \text{upper}, \text{mean}, \text{sd}$
and vars σ :

Trig:
Arc length of circle: $\theta = \frac{s}{r}$

Trig Graph Equation: $y = a \sin(bx + c) + d$

Period: $\frac{2\pi}{b}$ | cycle
amp
midline

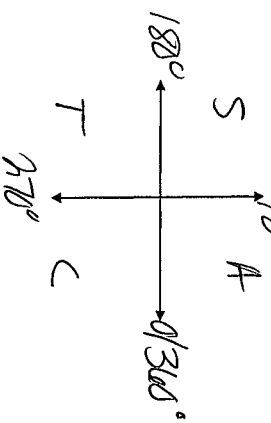
List the three trigonometric functions and their reciprocals:

$\sin = \frac{o}{h} \rightarrow \csc$

$\cos = \frac{a}{h} \rightarrow \sec$

$\tan = \frac{o}{a} \rightarrow \cot$

Fill out the quadrants with degree measures and where each function is positive:



(x, y)
 $\cos \sin$