Graphing/Calc: General Formula TOV $x-int\ (x,0)$ $y-int\ (0,y)$ Domain/Range Word Probs

C12 - 0.0 - Methods

Transformations

Substitute the Opposite Operation for the Variable

"Put (___) in for (____)"

Horizontal/Vertical Translations
Expansions/Compressions
Reflections
Inverse: Switch x and y
Invariant Points
Factor Brackets
Do functions stuff 1st.
BEDMAS, Inside Out
Steps Layout
Mapping/Order
Function Notation

Trigonometry

Radians <-> Degrees
Arc Length/Sector Area
ASTC/QI,II,III,IV/Unit Circle
Special/Similar Triangles
SOH-CAH-TOA
$csc\theta, sec\theta, cot\theta$
Solving Equations
$let\ m = 2x$
$let\ m = sinx$
$\theta_r = \sin^{-1}(+)$
$\pm\theta_{stp}, \theta_{r,}\theta_{cot}, \theta_{pri}$
$0 \le x < 2\pi$
$\theta_{gen} = \theta + p^*n, n \in I$
$x^2 + y^2 = r^2$
Linear/Angular Velocity

Exponentials

Exponent/Radical laws (Change of Base)
Separating Exponents
$y_1 = y_2$ Find Intersection (Or use Logs)
Same Base/Exponent: Make Exponents/Bases equal to each other.
Take both/sides to reciprocal exponent of variable/things.
$let\ m = 2^x$

Set $P = 1\ or\ 100$

Radicals

Laws/Square both sides
Domain: Set underneath the root ≥ 0 and solve
$y = \sqrt{f(x)}$
Pick an x value on $f(x)$
Square root the y-value
Draw the new point.

Trig Functions

Box Model
DACB

Trig Identities

Identities
Fractions/LCD
Factoring/FOIL
Conjugates

Logarithms

Log/Exponential Form/Laws/Change of Base.
Bring Exponent down in front/Separate.
Log both sides/De-log both side.
Set Log arbitrarily $= x$
$Let\ m = logx$
Domain: Set the thing you are logging > 0
Set the base of the log $> 0\ and\ \neq 1$
VA: Set the thing you are logging $= 0$
Graphing: Graph b^x->Switch x and y->Trans

Polynomials Put it in!

Definition
Factoring
Long Division −
Synthetic Division +
Factor Theorem
Remainder Theorem
Potential Factors (x-a)
Solve by Inspection f(a)
Store x/Graph 2nd Calc Zero
Graphing
End behavior
Multiplicity

$y = a(x-z)^1(x-r)^2 \ldots$

M8-11 Methods

Bedmas/# Forms
Substitution, let m = #
Algebra/Fractions/LCD
$y = mx + b$
Exponents/Geometry
Systems/Radicals
Factoring/Quad Form
Rationals/Trigonometry
Absolute Value
Inequalities

Rationals

Steps: Factor, Holes, VA, HA, SA's
VA: Set Denominator $= 0\ and\ solve$
LCD Fractions
Long/Synthetic Division

Function operations

$f(x) + g(x)$
$f(x) - g(x)$
$f(x) \times g(x)$
$f(x) \div g(x)$
$f(g(x))$

Combinatorics

FCP
Factorials
Tree Diagram
nPr, nCr
Cases
All minus none
Identical Objects
Paths in Squares
Pascal 'Triangle
Binomial Theorem