SheetFormR Math Mode — Grade 12

Pre-Calculus & Calculus | CCSS Domains: F-TF | N-CN | A-APR | G-GPE | Limits | Derivatives

How to use:
Step 1: Add a column named Equation (or Math, Formula, EQ, LaTeX) to your spreadsheet.
Step 2: Type your equation using the notation below.   Step 3: Enable Render Math Equations in Build Options.
Step 4: Build your form — equations appear as crisp, professional images! No codes needed.

Notation: * = multiply ^ = exponent / = fraction sqrt() = sq root pi = pi _ = subscript sin() cos() tan() = trig
Extended: _ = subscript (log_2 = log base 2) |x| = absolute value sin() cos() tan() = trig theta = th

Quick Start: You type: sin^2(x) + cos^2(x) = 1 ->   *Students see: the Pythagorean identity rendered as a crisp image*

Advanced Trigonometry (F-TF)

Standard	What You Want	Type in Equation Column	Students See (rendered image)
F-TF.1	Radian conversion	`180deg = pi`	*180 deg = pi*
F-TF.2	Unit circle values	`sin(pi/6) = 1/2`	*sin(pi/6) = 1/2*
F-TF.3	Reciprocal functions	`sec(x) = 1/cos(x)`	*sec = 1/cos*
F-TF.5	Model periodic	`y = A*sin(Bx + C) + D`	*sinusoidal model*
F-TF.7	Inverse trig	`arcsin(1/2) = pi/6`	*arcsin(1/2) = pi/6*
F-TF.8	Pythagorean identity	`sin^2(x) + cos^2(x) = 1`	*sin sq + cos sq = 1*
F-TF.9	Sum formula	`sin(A + B)`	*sin(A + B)*
F-TF.9	Double angle	`sin(2x) = 2*sin(x)*cos(x)`	*double angle formula*
F-TF.9	Cos double angle	`cos(2x) = cos^2(x)-sin^2(x)`	*cos double angle*
+	Half angle	`sin(x/2)`	*half angle formula*

Law of Sines / Cosines (+)

Standard	What You Want	Type in Equation Column	Students See (rendered image)
+	Law of cosines	`c^2 = a^2+b^2-2*a*b*cos(C)`	*law of cosines*
+	Law of sines	`a/sin(A) = b/sin(B)`	*a/sin(A) = b/sin(B)*
+	Area with trig	`1/2 * a * b * sin(C)`	*1/2 x a x b x sin(C)*

Polar & Parametric (+)

Standard	What You Want	Type in Equation Column	Students See (rendered image)
+	Polar coordinates	`(r, theta)`	*(r, theta)*
+	Polar to rectangular	`x = r * cos(theta)`	*x = r cos(theta)*
+	Rectangular to polar	`r = sqrt(x^2 + y^2)`	*r = sqrt(x sq + y sq)*

Conic Sections (G-GPE, +)

Standard	What You Want	Type in Equation Column	Students See (rendered image)
G-GPE.1	Circle	`(x-h)^2 + (y-k)^2 = r^2`	*(x-h)sq + (y-k)sq = r sq*
+	Ellipse	`x^2/a^2 + y^2/b^2 = 1`	*x sq/a sq + y sq/b sq = 1*
+	Hyperbola	`x^2/a^2 - y^2/b^2 = 1`	*x sq/a sq - y sq/b sq = 1*
+	Parabola (vert.)	`y = 1/(4p) * x^2`	*y = x sq / 4p*

Limits & Continuity (Calculus)

Standard	What You Want	Type in Equation Column	Students See (rendered image)
Calc	Basic limit	`(x^2 - 4)/(x - 2)`	*(x sq - 4) over (x - 2)*
Calc	Limit at infinity	`1/x`	*1/x approaches 0*
Calc	Difference quotient	`(f(x+h) - f(x))/h`	*diff quotient*
Calc	Squeeze theorem	`-1 <= sin(x) <= 1`	*-1 <= sin(x) <= 1*

Derivatives (Calculus)

Standard	What You Want	Type in Equation Column	Students See (rendered image)
Calc	Power rule	`d/dx(x^n) = n*x^(n-1)`	*n x to (n-1)*
Calc	Derivative of const.	`d/dx(5) = 0`	*= 0*
Calc	Sum rule	`d/dx(x^2 + 3x)`	*2x + 3*
Calc	Product rule	`f'g + fg'`	*f'g + fg'*
Calc	Chain rule	`f(g(x)) -> f'(g(x))*g'(x)`	*chain rule*
Calc	Trig derivative	`d/dx(sin(x)) = cos(x)`	*cos(x)*
Calc	Exponential deriv.	`d/dx(e^x) = e^x`	*e to the x*

Sequences, Series & Other (F-BF, A-SSE, +)

Standard	What You Want	Type in Equation Column	Students See (rendered image)
A-SSE.4	Geometric series sum	`a * (1-r^n)/(1-r)`	*finite series*
+	Infinite geometric	`a/(1 - r)`	*a over (1 - r)*

Sequences, Series & Other (F-BF, A-SSE, +) (continued)

Standard	What You Want	Type in Equation Column	Students See (rendered image)
+	Binomial theorem	`(a + b)^n`	*(a + b) to the n*
+	Euler's number	`e^x`	*e to the x*
+	Natural logarithm	`ln(x)`	*ln(x)*
+	Log properties	`ln(a*b) = ln(a) + ln(b)`	*product rule*

DIFFERENTIATION BAND   Content from the grade below (remediation/review) and above (enrichment/extension).

Below Grade: Algebra 2 Review

Standard	What You Want	Type in Equation Column	Students See (rendered image)
A-APR.3	Factor polynomial	`(x-2)(x^2+2x+4)`	*factored cubic*
F-LE.4	Logarithms	`log_2(8) = 3`	*log base 2 of 8*
N-CN.7	Complex solutions	`x^2 + 4 = 0`	*x sq + 4 = 0*
F-BF.2	Sequences	`a * r^(n-1)`	*geometric sequence*
A-SSE.3c	Compound interest	`A = P(1+r/n)^(n*t)`	*compound interest*

College Preview: Integration

Standard	What You Want	Type in Equation Column	Students See (rendered image)
Calc	Antiderivative	`x^(n+1)/(n+1)`	*reverse power rule*
Calc	Definite integral	`F(b) - F(a)`	*net area*
Calc	Area under curve	`pi * r^2 (via integral)`	*integral application*

Common Mistakes:

Always enable "Render Math Equations" in Build Options before building. Use * for multiplication (not the letter x).

Fractions: a/b renders as a stacked fraction. Use parentheses for complex fractions: (x^2-1)/(x+1).

The "Students See" column describes the rendered image — it is NOT what you type. Preview your form to check equations.