

SheetFormR Math Mode — Grade 8

CCSS Domains: 8.NS | 8.EE | 8.F | 8.G | 8.SP

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() = square root pi = pi deg = degrees >= <= = ineq.

Quick Start: You type: $a^2 + b^2 = c^2 \rightarrow$ Students see: *a rendered image: a-squared + b-squared = c-squared*

The Number System: Irrational Numbers (8.NS)

Standard	What You Want	Type in Equation Column	Students See (rendered image)
8.NS.1	Rational as repeating	$1/3 = 0.333\dots$	$1/3 = 0.333\dots$
8.NS.2	Approximate irrationals	$\text{sqrt}(2)$	square root of 2 (-1.414)
8.NS.2	Locate on number line	$\text{sqrt}(5)$	square root of 5 (-2.236)

Expressions & Equations: Exponents (8.EE) -- SBAC Priority

Standard	What You Want	Type in Equation Column	Students See (rendered image)
★ 8.EE.1	Product of powers	$3^2 * 3^4 = 3^6$	3 sq x 3 to 4th = 3^6
★ 8.EE.1	Power of a power	$(5^2)^3 = 5^6$	(5 sq) cubed = 5^6
★ 8.EE.1	Quotient of powers	$2^5/2^2 = 2^3$	2^5 / 2^2 = 2 cubed
★ 8.EE.1	Negative exponents	$2^{-3} = 1/8$	2 to -3 = 1/8
★ 8.EE.1	Zero exponent	$5^0 = 1$	5 to the 0 = 1
★ 8.EE.2	Square root	$\text{sqrt}(64) = 8$	square root 64 = 8
★ 8.EE.2	Cube root equation	$x^3 = 27$	x cubed = 27
★ 8.EE.3	Scientific notation	$6.02 * 10^{23}$	6.02 x 10 to the 23rd
★ 8.EE.3	Very small number	$3.5 * 10^{-4}$	3.5 x 10 to the -4
★ 8.EE.4	Operations in sci. not.	$(2 * 10^3) * (4 * 10^5)$	(2x10^3)(4x10^5)

Linear Equations & Systems (8.EE) -- SBAC Priority

Standard	What You Want	Type in Equation Column	Students See (rendered image)
★ 8.EE.5	Graph proportional	$y = 3x$	$y = 3x$
★ 8.EE.6	Slope = rise/run	$(y2 - y1)/(x2 - x1)$	(y2-y1) over (x2-x1)
★ 8.EE.6	Slope-intercept	$y = mx + b$	$y = mx + b$
★ 8.EE.7a	Infinite solutions	$2x + 4 = 2(x + 2)$	$2x+4 = 2(x+2)$
★ 8.EE.7b	Multi-step equation	$4(x - 2) = 3x + 1$	$4(x-2) = 3x + 1$
★ 8.EE.7b	Variables both sides	$7x - 3 = 2x + 12$	$7x - 3 = 2x + 12$
★ 8.EE.8a	System solution	$2x + y = 10$	$2x + y = 10$
★ 8.EE.8b	Substitution	$y = 3x - 2$	$y = 3x - 2$

Functions (8.F) -- SBAC Priority

Standard	What You Want	Type in Equation Column	Students See (rendered image)
★ 8.F.1	Function notation	$f(x) = 2x + 3$	$f(x) = 2x + 3$
★ 8.F.2	Compare functions	$y = 2x + 1$	$y = 2x + 1$
★ 8.F.3	Linear vs. non-linear	$y = x^2$	$y = x \text{ squared (non-linear)}$
★ 8.F.4	Rate of change	$(y2 - y1)/(x2 - x1) = m$	slope = m
★ 8.F.4	Initial value	$y = 3x + 5$	$y = 3x + 5 (b = 5)$

Geometry (8.G)

Standard	What You Want	Type in Equation Column	Students See (rendered image)
8.G.5	Angle relationships	$180\text{deg} - x$	180 - x degrees
8.G.7	Pythagorean theorem	$a^2 + b^2 = c^2$	a sq + b sq = c sq
8.G.7	Find hypotenuse	$\text{sqrt}(3^2 + 4^2)$	$\text{sqrt}(9 + 16) = 5$
8.G.8	Distance formula	$\text{sqrt}((x2-x1)^2 + (y2-y1)^2)$	distance formula
8.G.9	Cylinder volume	$\text{pi} * r^2 * h$	pi x r sq x h
8.G.9	Cone volume	$1/3 * \text{pi} * r^2 * h$	1/3 x pi x r sq x h
8.G.9	Sphere volume	$4/3 * \text{pi} * r^3$	4/3 x pi x r cubed

DIFFERENTIATION BAND

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

Below Grade: Grade 7 Review

Standard	What You Want	Type in Equation Column	Students See (rendered image)
7.NS.1	Integer operations	$-5 + 3$	$-5 + 3$
7.NS.2	Multiply negatives	$-3 * (-4)$	$-3 \times (-4)$
7.EE.4	Two-step equation	$2x + 3 = 11$	$2x + 3 = 11$
7.G.4	Circle area	$\pi * r^2$	$\pi \times r \text{ squared}$
7.RP.3	Percent problems	$0.15 * 80$	0.15×80

Above Grade: HS Algebra 1 Preview

Standard	What You Want	Type in Equation Column	Students See (rendered image)
A-SSE.1	Interpret expression	$3x^2 + 5x - 2$	$3x \text{ sq} + 5x - 2$
A-SSE.3	Factor quadratic	$(x + 2)(x + 3)$	$(x + 2)(x + 3)$
A-REI.4	Quadratic formula	$(-b + \sqrt{b^2 - 4*a*c}) / (2*a)$	<i>quadratic formula</i>
F-IF.7	Graph quadratic	$y = x^2 - 4$	$y = x \text{ sq} - 4$
F-BF.1	Build function	$f(x) = 2x^2 - 3x + 1$	<i>function expression</i>
F-LE.1	Exponential growth	$y = 100 * 1.05^t$	$y = 100 \times 1.05^t$

Smarter Balanced (SBAC) Test Prep Tips

These equations align with SBAC Claim 1 (Concepts & Procedures). For Claims 2-4 (Problem Solving, Reasoning, Modeling), embed equations in word problems using the Question column. Stars mark SBAC priority standards tested most heavily.

SBAC Question Types in SheetFormR: Multiple Choice = Selected Response | Checkbox = Multiple Select | Short Answer = Constructed Response

Practice with real SBAC items: sampleitems.smarterbalanced.org | Practice/Training Tests: practice.smarterbalanced.org

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.