

# SheetFormR Math Mode — Grade 4

CCSS Domains: 4.OA | 4.NBT | 4.NF | 4.MD | 4.G

## 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 deg = degrees () = grouping > < = compare

Mixed Numbers: *Type a SPACE between the whole number and fraction.  $2\frac{1}{3}$  = mixed number.  $\frac{21}{3}$  = twenty-one thirds.*

Quick Start: You type:  $3/4 = 6/8$  -> Students see: a stacked fraction image:  $3/4 = 6/8$

## Operations & Algebraic Thinking (4.OA) -- SBAC Priority

Standard	What You Want	Type in Equation Column	Students See (rendered image)
★ 4.OA.1	Multiplicative compare	$3 * 7 = 21$	$3 \times 7 = 21$
★ 4.OA.2	Multiply/divide word	$? * 8 = 96$	$? \times 8 = 96$
★ 4.OA.3	Multi-step problem	$4 * 8 + 3 * 5$	$4 \times 8 + 3 \times 5$
★ 4.OA.3	Remainder interpret	$62/8$	$62 \text{ over } 8$
★ 4.OA.4	Factor pairs	$36 = 4 * 9$	$36 = 4 \times 9$
★ 4.OA.5	Number pattern	$3, 6, 9, 12, \dots$	$3, 6, 9, 12, \dots$

## Multi-Digit Arithmetic (4.NBT) -- SBAC Priority

Standard	What You Want	Type in Equation Column	Students See (rendered image)
★ 4.NBT.1	Place value (10x)	$10 * 500$	$10 \times 500$
★ 4.NBT.2	Compare multi-digit	$4,782 > 4,728$	$4,782 > 4,728$
★ 4.NBT.3	Round multi-digit	$4,782 \rightarrow 4,800$	$4,782 \text{ rounds to } 4,800$
★ 4.NBT.4	Add/sub multi-digit	$3,405 + 2,187$	$3,405 + 2,187$
★ 4.NBT.5	Multi-digit multiply	$35 * 12$	$35 \times 12$
★ 4.NBT.5	Distributive property	$(30 + 5) * 12$	$(30 + 5) \times 12$
★ 4.NBT.6	Long division (4 by 1)	$845/5$	$845 \text{ over } 5$

## Fractions (4.NF) -- SBAC Priority

Standard	What You Want	Type in Equation Column	Students See (rendered image)
★ 4.NF.1	Equivalent fractions	$1/3 = 2/6$	$1/3 = 2/6$
★ 4.NF.1	Generate equivalent	$2/3 = 4/6 = 6/9$	$2/3 = 4/6 = 6/9$
★ 4.NF.2	Compare unlike denom.	$3/8 < 5/8$	$3/8 < 5/8$
★ 4.NF.2	Compare diff. denom.	$3/4 > 2/3$	$3/4 > 2/3$
★ 4.NF.3a	Add like denominators	$2/5 + 1/5$	$2/5 + 1/5$
★ 4.NF.3b	Decompose fraction	$5/4 = 1 + 1/4$	$5/4 = 1 + 1/4$
★ 4.NF.3c	Mixed number	$2\frac{3}{4}$	$2\frac{3}{4}$ (mixed number)
★ 4.NF.3c	Mixed number add	$1\frac{1}{4} + 2\frac{2}{4}$	$1\frac{1}{4} + 2\frac{2}{4}$
★ 4.NF.3d	Sub mixed numbers	$3\frac{3}{8} - 1\frac{1}{8}$	$3\frac{3}{8} - 1\frac{1}{8}$
★ 4.NF.4a	Fraction x whole	$3 * 1/5$	$3 \times 1/5$
★ 4.NF.4b	Multiple of fraction	$5 * 2/3$	$5 \times 2/3$
★ 4.NF.5	Denom. 10 and 100	$3/10 = 30/100$	$3/10 = 30/100$
★ 4.NF.6	Decimal notation	$0.62 = 62/100$	$0.62 = 62/100$
★ 4.NF.7	Compare decimals	$0.6 > 0.45$	$0.6 > 0.45$

## Measurement: Angles (4.MD)

Standard	What You Want	Type in Equation Column	Students See (rendered image)
4.MD.3	Area formula	$l * w$	$l \times w$
4.MD.3	Perimeter formula	$2 * (l + w)$	$2 \times (l + w)$
4.MD.5	Angle concept	$90\text{deg}$	$90 \text{ degrees}$
4.MD.6	Measure angles	$45\text{deg} + 30\text{deg}$	$45 + 30 \text{ degrees}$
4.MD.7	Angle addition	$90\text{deg} = 60\text{deg} + 30\text{deg}$	$90 = 60 + 30 \text{ degrees}$

**DIFFERENTIATION BAND**

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

**Below Grade: Grade 3 Review**

Standard	What You Want	Type in Equation Column	Students See (rendered image)
3.OA.7	Fluent multiply in 100	$8 * 7$	$8 \times 7$
3.NF.1	Unit fractions	$1/6$	$1/6$
3.NF.3d	Compare like denom.	$5/8 > 3/8$	$5/8 > 3/8$
3.MD.7	Area by tiling	$5 * 3$	$5 \times 3$ (sq units)

**Above Grade: Grade 5 Preview**

Standard	What You Want	Type in Equation Column	Students See (rendered image)
5.NF.1	Add unlike denom.	$1/3 + 1/4$	$1/3 + 1/4$
5.NF.1	Subtract unlike denom.	$5/6 - 1/3$	$5/6 - 1/3$
5.NF.3	Fraction as division	$3/5 = 3 / 5$	$3/5 = 3 / 5$
5.NF.4	Fraction x fraction	$2/3 * 3/4$	$2/3 \times 3/4$
5.NF.6	Mixed number multiply	$2 \frac{1}{2} * 1 \frac{1}{3}$	$2 \frac{1}{2} \times 1 \frac{1}{3}$
5.NBT.5	Multi-digit multiply	$345 * 67$	$345 \times 67$
5.NBT.7	Decimal operations	$3.5 + 2.75$	$3.5 + 2.75$
5.MD.3-5	Volume = l x w x h	$5 * 3 * 2$	$5 \times 3 \times 2$ (cubic units)

**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](http://sampleitems.smarterbalanced.org) | Practice/Training Tests: [practice.smarterbalanced.org](http://practice.smarterbalanced.org)

**Common Mistakes:**

Always enable "Render Math Equations" in Build Options before building. Use \* for multiplication (not the letter x). The "Students See" column describes the rendered image — it is NOT what you type. Preview your form to check equations.