

Grade 6 Math Performance Rubric

Math Content Areas

Ratios & Proportional Relationships

Numbers System

Expressions & Equations

Geometry

Statistics & Probability

Ratios & Proportional Relationships

I can use ratio language to describe relationships (6.RP.A.1)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">Use ratio language to describe a ratio relationship between two quantities. <i>For example, “The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”</i>	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Ratios & Proportional Relationships

I can find the unit rate in real world contexts (6.RP.A.2, 6.RP.A.3b)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• Use rate language in the context of a ratio relationship involving unit rates. <i>For example, “This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $\frac{3}{4}$ cup of flour for each cup of sugar.” “We paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger.”</i> (RP.A.2)• Solve unit rate problems including those involving unit pricing and constant speed. <i>For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?</i> (RP.A.3b)	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Ratios & Proportional Relationships

I can make tables of equivalent ratios and plot the pairs of values on the coordinate plane (6.RP.A.3a)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">● Make tables of equivalent ratios relating quantities with whole number measurements.● Find missing values in the tables.● Plot the pairs of values on the coordinate plane.● Use tables to compare ratios.	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Ratios & Proportional Relationships

I can solve real world problems involving percent (6.RP.A.3c)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">● Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity)● Solve problems involving finding the whole, given a part and the percent.	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Ratios & Proportional Relationships

I can convert measurements using ratio reasoning (6.RP.A.3d)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• Use ratio reasoning to convert measurement units (knowing when to multiply or divide units appropriately)	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Numbers System

I can divide fractions and mixed numbers (6.NS.A.1)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2 3	<p>With significant teacher support, limited progress or is unable to perform at a Progressing or Meets level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem	<p>Independently and consistently able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Numbers System

I can divide whole numbers (6.NS.B.2)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2 3	<p>With significant teacher support, limited progress or is unable to perform at a Progressing or Meets level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• Fluently divide multi-digit numbers using the standard algorithm.	<p>Independently and consistently able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Numbers System

I can add, subtract, multiply and divide decimals (6.NS.B.3)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2 3	<p>With significant teacher support, limited progress or is unable to perform at a Progressing or Meets level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• . Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	<p>Independently and consistently able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Numbers System

I can find the greatest common factor and the least common multiple (6.NS.B.4)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2 3	<p>With significant teacher support, limited progress or is unable to perform at a Progressing or Meets level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express $36 + 8$ as $4(9 + 2)$.	<p>Independently and consistently able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Numbers System

I can identify integers in real world contexts, including absolute values (6.NS.C.5, 6.NS.C.7c)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2 3	<p>With significant teacher support, limited progress or is unable to perform at a Progressing or Meets level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• Use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation. (<i>e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge</i>) (6.NS.5)• Interpret absolute value as magnitude for a positive or negative quantity in a real world situation as its distance from 0 on the number line. <i>For example, for an account balance of -30 dollars, write $-30 = 30$ to describe the size of the debt in dollars.</i> (6.NS.7c)	<p>Independently and consistently able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Numbers System

I can compare and order rational numbers, including absolute values (6.NS.C.6a, 6.NS.C.7a, 6.NS.C.7b, 6.NS.C.7d)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2 3	<p>With significant teacher support, limited progress or is unable to perform at a Progressing or Meets level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, <i>e.g.</i>, $-(-3) = 3$, and that 0 is its own opposite.Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. <i>For example, interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right.</i>Write, interpret, and explain statements of order for rational numbers in real-world contexts. <i>For example, write $-3 < -7$ to express the fact that -3 is warmer than -7.</i>Distinguish comparisons of absolute value from statements about order. <i>For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.</i>	<p>Independently and consistently able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Expressions & Equations

I can write and evaluate numerical expressions with exponents (6.EE.A.1)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1				
2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• Write numerical expressions involving whole-number exponents.• Evaluate numerical expressions involving whole-number exponents.	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extend cognitively beyond.</p>

Expressions & Equations

I can write and translate algebraic expressions (6.EE.A.2a, 6.EE.B.6)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1				
2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• Write expressions that record operations with numbers and with letters standing for numbers. <i>For example, express the calculation “Subtract y from 5” as $5 - y$.</i> (6.EE.A.2a)• Use variables to represent numbers. (6.EE.B.6)• Write expressions when solving a real-world or mathematical problem by using a variable to represent an unknown number, or, depending on the purpose at hand, any number in a specified set. (6.EE.B.6)	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extend cognitively beyond.</p>

Expressions & Equations

I can identify parts of an expression using appropriate vocabulary (6.EE.A.2b)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1				
2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient)View one or more parts of an expression as a single entity. <i>For example, describe the expression $2(8 + 7)$ as a product of two factors; view $(8 + 7)$ as both a single entity and a sum of two terms.</i>	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extend cognitively beyond.</p>

Expressions & Equations

I can evaluate real world expressions using substitution (6.EE.A.2c)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1				
2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">Evaluate expressions at specific values of their variables. (Include expressions that arise from formulas used in real-world problems and perform arithmetic operations using order of operations.) <i>For example, use the formulas $V = s^3$ and $A = 6s^2$ to find the volume and surface area of a cube with sides of length $s = 1/2$.</i>	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extend cognitively beyond.</p>

Expressions & Equations

I can identify and write expressions that are equivalent by combining like terms and/or applying the distributive property (6.EE.A.3, 6.EE.A.4)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1				
2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">Apply the properties of operations to generate equivalent expressions. <i>For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$; apply the distributive property to the expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce the equivalent expression $3y$. (6.EE.A.3)</i>Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). <i>For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for. (6.EE.A.4)</i>	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extend cognitively beyond.</p>

Expressions & Equations

I can evaluate an equation or inequality using substitution (6.EE.B.5)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1				
2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extend cognitively beyond.</p>

Expressions & Equations

I can use inverse operations to solve equations (6.EE.B.7)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1				
2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extend cognitively beyond.</p>

Expressions & Equations

I can write and graph inequalities to represent real world situations (6.EE.B.8)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1				
2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem.• Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions.• Represent solutions of inequalities on number line diagrams.	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extend cognitively beyond.</p>

Expressions & Equations

I can graph equations in relation to the independent and dependent variables (6.EE.C.9)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1				
2 3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• Use variables to represent two quantities in a real-world problem that change in relationship to one another.• Write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable.• Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. <i>For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.</i>	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extend cognitively beyond.</p>

Geometry

I can apply area concepts to triangles and other composite figures (6.G.A.1)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2				
3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">• Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes• Apply these techniques in the context of solving real-world and mathematical problems.	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Geometry

I can find the volume of rectangular prisms with fractional edge lengths (6.G.A.2)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2				
3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">● Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths● Show that volume is the same as would be found by multiplying the edge lengths of the prism.● Apply the formulas $V = l w h$ and $V = B h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Geometry

I can draw polygons on the coordinate plane and find their side lengths (6.NS.6b, 6.NS.6c, 6.G.A.3)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2				
3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none"> • Use the signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane (6.NS.6b) • Recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. (6.NS.6b) • Find and position integers and other rational numbers on a horizontal or vertical number line diagram (6.NS.6c) • Find and position pairs of integers and other rational numbers on a coordinate plane. (6.NS.6c) • Draw polygons in the coordinate plane given coordinates for the vertices. (6.G.3) • Use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. (6.G.3) • Solve real-world and mathematical problems involving coordinate planes. (6.G.3) 	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Geometry

I can identify prisms and pyramids in relation to their nets and determine their surface areas (6.G.A.4)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2				
3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none">● Represent three-dimensional figures using nets made up of rectangles and triangles. (6.G.4)● Use nets to find the surface area of solid figures. (6.G.4)● Apply these techniques in the context of solving real-world and mathematical problems. (6.G.4)	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>

Statistics & Probability

I can ask statistical questions, collect, organize and analyze data to draw conclusions (6.SP.A.1, 6.SP.A.2, 6.SP.A.3, 6.SP.B.4, 6.SP.B.5a, 6.SP.B.5b, 6.SP.B.5c, 6.SP.B.5d)

Trimester	1: Needs Improvement	2: Progressing	3: Meets	4: Excels
1 2				
3	<p>With significant teacher support, the student will make limited progress or is unable to perform at a “Progressing” or “Meets” level.</p>	<p>The student will have partial success at a “Meets” level independently. OR with teacher prompting and support the student will have success at a “Meets” level.</p>	<p>The student will independently:</p> <ul style="list-style-type: none"> Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. <i>For example, “How old am I?” is not a statistical question, but “How old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.</i>(SP.A.1) Describe a set of data by its overall shape. <i>(For example, skewed left, skewed right, symmetrical.)</i> (SP.A.2) Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number. (SP.A.3) Display numerical data in plots on a number line, including dot plots, histograms, and box plots. (SP.B.4) Report the number of observations. (SP.B.5a) Describe the nature of the attribute under investigation, including how it was measured and its units of measurement. (SP.B.5b) Give quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation) (SP.B.5c) Describe any overall pattern and any striking deviations from the overall 	<p>The student will independently and consistently be able to demonstrate all criteria for a “Meets” and extends cognitively beyond.</p>