

Performance Level Descriptors

Mathematics

Grade 6

2024



This publication is available from:
Division of Student and School Success
Office of Educational Accountability
(608) 267-1072

<https://dpi.wi.gov/assessment/correspondence>

July 2024 Wisconsin Department of Public Instruction

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Performance Level Descriptors

The Forward Exam is a summative assessment which provides information about what students know and can do in relation to the Wisconsin Academic Standards at each grade-level. Students receive a score based on their performance in each content area. The Student Performance Level is a categorical score.

Range performance levels are based on predetermined score ranges. The score ranges for each content area are set using a process in which Wisconsin educators carefully consider the academic standards, performance level descriptors, and test questions. There are four performance levels: *Developing*, *Approaching*, *Meeting*, and *Advanced*. The goal for all students is to score at the meeting or advanced level.

More-detailed descriptions of the specific concepts and skills are provided for each indicator in the **Performance Level Descriptors** (PLDs). Range PLDs are descriptions of the knowledge and skills expected at each of the four performance levels. The Range PLDs are based on the approved 2021 state-adopted content standards.

PLDs show a *progression of knowledge and skills* expected across the performance levels. It is important to understand that a student should demonstrate an understanding of the knowledge and skills within a performance level *as well as all content and skills in any performance levels that precede it, if any*. For example, a student who is meeting expectations should also possess the knowledge and skills described at the developing and approaching performance levels.

| Policy Performance Level Descriptors | | | |
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| Developing | Approaching | Meeting | Advanced |
| Student is at the beginning stages of developing the knowledge and skills described in the Wisconsin Academic Standards for their grade level needed to be on-track for future learning. | Student is approaching the knowledge and skill expectations described in the Wisconsin Academic Standards for their grade level needed to be on-track for future learning. | Student is meeting the knowledge and skill expectations described in the Wisconsin Academic Standards for their grade level and is on-track for future learning. | Student demonstrates a thorough understanding of the knowledge and skills described in the Wisconsin Academic Standards for their grade level and is on-track for future learning. |

Range Performance Level Descriptors

| Ratios and Proportional Relationships | | | |
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| Developing | Approaching | Meeting | Advanced |
| A student at this level can likely identify a ratio, | A student at this level can likely | A student at this level can likely use ratio language and notation to describe a relationship between two quantities, including determining a unit rate, given non-complex fractions, | A student at this level can likely |
| identify an equivalent ratio, and | make a table of equivalent ratios, | determine one or more missing values in a table of equivalent ratios, | |
| | represent ratio relationships by plotting ordered pairs on the coordinate plane, and | solve unit rate problems in the context of a ratio relation, | solve multi-step unit rate problems, and |
| identify a percent. | determine the percent of a quantity as a rate per 100. | solve real-world problems by finding the whole when given a part and the percent, and | solve real-world percent problems. |
| | | use ratio reasoning to convert or compare measurement units. | |
| The Number System | | | |
| Developing | Approaching | Meeting | Advanced |
| A student at this level can likely identify a visual fraction model that represents the division of a fraction by a fraction, | A student at this level can likely flexibly compute the quotient of two fractions, | A student at this level can likely solve word problems by computing and interpreting the quotient of two fractions, | A student at this level can likely |

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| | | use multiplication and division as well as visual models to explain the meaning of a quotient of two fractions within a context, | |
| | flexibly compute the quotient of multi-digit whole numbers, | flexibly and efficiently compute the quotient of multi-digit whole numbers using a variety of strategies, | use the strategies or algorithms based on place value, area models, or the relationships and properties of operations to explain the division of multi-digit whole numbers, |
| flexibly add and subtract multi-digit decimals to tenths, | flexibly add, subtract, multiply, and divide multi-digit decimals to hundredths, | flexibly and efficiently add, subtract, multiply, and divide multi-digit decimals using a variety of strategies, | use strategies or algorithms based on place value, visual models, or the relationships and properties of operations to explain the addition, subtraction, multiplication, and division of multi-digit decimals, |
| determine the greatest common factor of two whole numbers less than or equal to 20, and | determine the greatest common factor of two whole numbers less than or equal to 50, | determine the greatest common factor of two whole numbers less than or equal to 100, | |
| | determine the least common multiple of two whole numbers less than or equal to 8, | determine the least common multiple of two whole numbers less than or equal to 12, | |
| | use the distributive property to recognize the sum of two whole numbers with a common factor as a multiple of a sum of two whole numbers with no common factor, | use the distributive property to express the sum of two whole numbers with a common factor as a multiple of a sum of two whole numbers without a common factor, | |
| | | use positive and negative numbers to represent quantities in real-world contexts and explain the meaning of zero, | |

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| | identify the opposite of an integer and plot it on a horizontal or vertical number line, | identify the opposite of a rational number and plot it on a horizontal or vertical number line, | |
| locate ordered pairs with integer coordinates in the first quadrant, and | locate ordered pairs with integer coordinates in any of the four quadrants, and | locate ordered pairs with rational coordinates in any of four quadrants and understand that two ordered pairs that differ only by sign are reflections across one or both axes, | |
| recognize that positive and negative numbers are used together to describe quantities having opposite directions or values. | identify the absolute values of rational numbers. | write, interpret, and explain statements about absolute value and the order of rational numbers, use absolute value to determine the distance between points with either the same first coordinate or the same second coordinate, and | explain comparisons about the magnitudes of rational numbers using absolute value, and |
| | | solve real-world and mathematical problems by graphing in all four quadrants. | solve real-world problems by graphing and interpreting points in all four quadrants. |

Expressions and Equations

| Developing | Approaching | Meeting | Advanced |
|---|---|--|---|
| A student at this level can likely | A student at this level can likely | A student at this level can likely | A student at this level can likely |
| identify parts of an algebraic expression using mathematical terms. | read and evaluate algebraic expressions, | read, write, and evaluate algebraic expressions, | |
| | recognize two equivalent expressions, | generate two equivalent expressions, | explain why two expressions are equivalent, |

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| | solve equations of the form $x + p = q$ or $px = q$, | solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ or $px = q$, | |
| | determine if a value is a solution for an inequality of the form $x > c$ or $x < c$, and | write an inequality of the form $x > c$ or $x < c$ and represent the solution on a number line for real-world and mathematical problems, and | write and solve an equation or inequality that represents a real-world problem and explain the meaning of the solution, and |
| | identify independent and dependent variables in real-world situations. | represent and analyze the relationship between independent and dependent variables in real-world situations using graphs, tables, or equations. | use multiple representations to analyze the relationship between independent and dependent variables in real-world situations. |
| Geometry | | | |
| Developing | Approaching | Meeting | Advanced |
| A student at this level can likely find the area of right triangles, and | A student at this level can likely find the area of triangles and special quadrilaterals that are decomposed, | A student at this level can likely find the area of polygons by composing or decomposing to solve real-world and mathematical problems, | A student at this level can likely find the area of polygons by composing or decomposing in more than one way to solve real-world and mathematical problems, |
| | find the volume of right rectangular prisms with fractional edge lengths using unit cubes or formulas or drawings, | find the volume of right rectangular prisms with fractional edge lengths using unit cubes or formulas to solve real-world and mathematical problems, | find the volume of composite figures that consist of right rectangular prisms with fractional edge lengths to solve real-world and mathematical problems, and |
| draw polygons in the coordinate plane using coordinates as vertices. | draw polygons in the coordinate plane using coordinates as vertices to determine side lengths, and | draw polygons in the coordinate plan using coordinates as vertices to determine side lengths and | |

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| | | solve real-world and mathematical problems, and | |
| | represent three-dimensional figures with nets. | use nets to represent and determine the surface area of three-dimensional figures in real-world and mathematical problems. | solve multi-step problems involving the surface area and volume of three-dimensional figures. |
| Statistics and Probability | | | |
| Developing | Approaching | Meeting | Advanced |
| A student at this level can likely | A student at this level can likely recognize a statistical question, | A student at this level can likely recognize a statistical question and describe how there is variability in the data related to the question, | A student at this level can likely |
| distinguish between a measure of center and a measure of variation. | understand that a measure of center summarizes all the values in a data set and a measure of variation for a data distribution describes how the values vary with a single number, and find a measure of center or a measure of variation for a data distribution, and | find and explain measures of center or measures of variation for a data distribution, | |
| | recognize a data display that represents a numerical data set. | create or analyze a data display that represents a numerical data set, and | analyze and compare two data displays. |
| | | relate or justify the choice of a measure of center or a measure of variability to the shape of a data distribution. | |