

Grade 5 Mathematics Performance Level Descriptors

Level 1 Low task complexity - <i>Simple problems using common mathematical terms and symbols</i>	Level 2 Low task complexity - <i>Simple problems using common mathematical terms and symbols</i>	Level 3 Moderate task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i>	Level 4 High task complexity - Multiple <i>mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements</i>
He/she is able to: <ul style="list-style-type: none"> • solve one-step subtraction word problems • divide sets (no greater than 6) into two equal parts • identify values in the tenths place • identify a number in the ones, tens or hundreds place • identify a given axis of a coordinate plan • match the conversion of 3 feet to 1 yard to a model • calculate elapsed time (i.e., hours) • identify whether the values increase or decrease in a line graph 	He/she is able to: <ul style="list-style-type: none"> • identify if the total will increase or decrease when combining sets • perform operations with decimals • identify a symbolic representation of the addition of two fractions • identify place values to the hundredths place • convert standard measurements 	He/she is able to: <ul style="list-style-type: none"> • solve multiplication and division word problems • perform operations with decimals • solve word problems involving fractions • identify place values to the hundredths place • locate a given point on a coordinate plane when given an ordered pair • convert standard measurements • convert between minutes and hours • make quantitative comparisons between data sets shown as line graphs 	He/she is able to: <ul style="list-style-type: none"> • solve multiplication and division word problems • perform operations with decimals • solve word problems involving fractions • identify place values to the hundredths place • locate a given point on a coordinate plane when given an ordered pair • convert standard measurements • convert between minutes and hours • make quantitative comparisons between data sets shown as line graphs
	AND with Moderate task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i> <ul style="list-style-type: none"> • compare the values of two products based upon multipliers • round decimals to nearest whole number 	AND with High task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i> <ul style="list-style-type: none"> • compare the values of two products based upon multipliers • round decimals to nearest whole number 	

Grade 6 Mathematics Performance Level Descriptors

Level 1 Low task complexity - <i>Simple problems using common mathematical terms and symbols</i>	Level 2 Low task complexity - <i>Simple problems using common mathematical terms and symbols</i>	Level 3 Moderate task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i>	Level 4 High task complexity - Multiple <i>mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements</i>
He/she is able to: <ul style="list-style-type: none"> identify a model of a given percent match a given unit rate to a model identify a representation of two equal sets identify a number less than zero on a number line identify the meaning of an unknown in a modeled equation count the number of grids or tiles inside a rectangle to find the area of a rectangle identify the object that appears most frequently in a set of data (mode) identify a representation of a set of data arranged into even groups (mean) 	He/she is able to: <ul style="list-style-type: none"> match a given ratio to a model recognize a representation of the sum of two halves solve real world measurement problems involving unit rates identify a representation of a value less than zero identify the median or the equation needed to determine the mean of a set of data 	He/she is able to: <ul style="list-style-type: none"> perform operations using up to three-digit numbers solve real world measurement problems involving unit rates identify positive and negative values on a number line determine the meaning of a value from a set of positive and negative integers solve word problems with expressions including variables compute the area of a parallelogram identify the median or the equation needed to determine the mean of a set of data 	He/she is able to: <ul style="list-style-type: none"> solve real world measurement problems involving unit rates identify positive and negative values on a number line solve word problems with expressions including variables compute the area of a parallelogram identify the median or the equation needed to determine the mean of a set of data
	AND with Moderate task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i> <ul style="list-style-type: none"> perform one-step operations with two decimal numbers solve word problems using a percent 	AND with High task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i> <ul style="list-style-type: none"> perform one-step operations with two decimal numbers solve word problems using a percent solve word problems using ratios and rates 	

Grade 7 Mathematics Performance Level Descriptors

Level 1 Low task complexity - <i>Simple problems using common mathematical terms and symbols</i>	Level 2 Low task complexity - <i>Simple problems using common mathematical terms and symbols</i>	Level 3 Moderate task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i>	Level 4 High task complexity - <i>Multiple mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements</i>
He/she is able to: <ul style="list-style-type: none"> identify a representation which represents a negative number and its multiplication or division by a positive number identify representations of area and circumference of a circle identify representations of surface area make qualitative comparisons when interpreting a data set presented on a bar graph or in a table 	He/she is able to: <ul style="list-style-type: none"> match a given ratio to a model identify the meaning of an unknown in a modeled equation describe a directly proportional relationship (i.e., increases or decreases) find the surface area of three-dimensional right prism 	He/she is able to: <ul style="list-style-type: none"> solve division problems with positive/negative whole numbers solve word problems involving ratios use a proportional relationship to solve a percentage problem identify proportional relationships between quantities represented in a table identify unit rate (constant of proportionality) in tables and graphs of proportional relationships compute the area of a circle find the surface area of a three-dimensional right prism 	He/she is able to: <ul style="list-style-type: none"> solve division problems with positive/negative whole numbers solve word problems involving ratios identify proportional relationships between quantities represented in a table compute the area of a circle find the surface area of a three-dimensional right prism
	AND with Moderate task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i>	AND with High task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i>	
	<ul style="list-style-type: none"> solve multiplication problems with positive/negative whole numbers interpret graphs to qualitatively contrast data sets 	<ul style="list-style-type: none"> solve multiplication problems with positive/negative whole numbers evaluate variable expressions that represent word problems interpret graphs to qualitatively contrast data sets 	

Grade 8 Mathematics Performance Level Descriptors

Level 1 Low task complexity - <i>Simple problems using common mathematical terms and symbols</i>	Level 2 Low task complexity - <i>Simple problems using common mathematical terms and symbols</i>	Level 3 Moderate task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i>	Level 4 High task complexity - <i>Multiple mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements</i>
He/she is able to: <ul style="list-style-type: none"> locate a given decimal number on a number line identify the relatively larger data set when given two data sets presented in a graph identify congruent rectangles identify similar rectangles identify an attribute of a cylinder identify a rectangle with the larger or smaller area as compared to another rectangle identify an ordered pair and its point on a graph 	He/she is able to: <ul style="list-style-type: none"> identify the solution to an equation which contains a variable identify the y-intercept of a linear graph match a given relationship between two variables to a model identify a data display that represents a given situation interpret data presented in graphs to identify associations between variables 	He/she is able to: <ul style="list-style-type: none"> locate approximate placement of an irrational number on a number line solve a linear equation which contains a variable identify the relationship shown on a linear graph calculate slope of a positive linear graph compute the change in area of a figure when its dimensions are changed solve for the volume of a cylinder plot provided data on a graph 	He/she is able to: <ul style="list-style-type: none"> locate approximate placement of an irrational number on a number line solve a linear equation which contains a variable identify the relationship shown on a linear graph compute the change in area of a figure when its dimensions are changed plot provided data on a graph
	AND with Moderate task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i>	AND with High task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i>	
	<ul style="list-style-type: none"> identify congruent figures use properties of similarity to identify similar figures interpret data tables to identify the relationship between variables 	<ul style="list-style-type: none"> interpret data presented in graphs to identify associations between variables interpret data tables to identify the relationship between variables use properties of similarity to identify similar figures identify congruent figures 	

Grade 11 Mathematics Performance Level Descriptors

Level 1 Low task complexity - <i>Simple problems using common mathematical terms and symbols</i>	Level 2 Low task complexity - <i>Simple problems using common mathematical terms and symbols</i>	Level 3 Moderate task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i>	Level 4 High task complexity - <i>Multiple mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements</i>
He/she is able to: <ul style="list-style-type: none"> • arrange a given number of objects into two sets in multiple combinations • match an equation with a variable to a provided real world situation • determine whether a given point is or is not part of a data set shown on a graph • identify an extension of a linear graph • use a table to match a unit conversion • complete the formula for area of a figure 	He/she is able to: <ul style="list-style-type: none"> • identify the model that represents a square number • identify variable expressions which represent word problems • identify the hypotenuse of a right triangle • identify the greatest or least value in a set of data shown on a number line • identify the missing label on a histogram • calculate the mean and median of a set of data 	He/she is able to: <ul style="list-style-type: none"> • compute the value of an expression that includes an exponent • identify variable expressions which represent word problems • solve real world measurement problems that require unit conversions • find the missing attribute of a three-dimensional figure • determine two similar right triangles when a scale factor is given • make predictions from data tables and graphs to solve problems • plot data on a histogram • calculate the mean and median of a set of data 	He/she is able to: <ul style="list-style-type: none"> • identify variable expressions which represent word problems • solve real world measurement problems that require unit conversions • determine two similar right triangles when a scale factor is given • make predictions from data tables and graphs to solve problems • plot data on a histogram • calculate the mean and median of a set of data
	AND with Moderate task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i>	AND with High task complexity - <i>Common problems presented in mathematical context using various mathematical terms and symbols</i>	
	<ul style="list-style-type: none"> • identify the linear representation of a provided real world situation • use an equation or a linear graphical representation to solve a word problem 	<ul style="list-style-type: none"> • identify the linear representation of a provided real world situation • use an equation or a linear graphical representation to solve a word problem • identify a histogram which represents a provided data set 	