

## California Mathematics Standards Suggested Learning Objectives

### Scaled Score values 1960 or smaller

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• add two single-digit whole numbers without regrouping. (1NS.2.1/1NS.2.6/2NS.2.2/3NS.2.1)</li> <li>• subtract two single-digit whole numbers without regrouping. (1NS.2.1/1NS.2.6/2NS.2.2/3NS.2.1)</li> <li>• recognize various ways of illustrating fractions using physical models, pictorial models, and words. (2NS.4.1/2NS.4.2)</li> <li>• vertically add two whole numbers with two digits without regrouping. (1NS.2.6/2NS.2.2/3NS.2.1)</li> <li>• subtract two two-digit whole numbers horizontally or vertically without regrouping. (1NS.2.6/2NS.2.2/3NS.2.1/4NS.3.1)</li> <li>• apply ordinal numbers 1st through 10th.*</li> <li>• compare whole numbers up to 100 to determine if one is greater than, less than, or equal to the other. (2NS.1.3/3NS.1.2/1NS.1.2)</li> </ul>	<ul style="list-style-type: none"> <li>• identify plane figures. (KMG.2.1/2MG.2.1/1MG.2.1/3MG.2.1)</li> <li>• identify symmetrical shapes. (4MG.3.4)</li> <li>• describe the relative position of objects in space in terms of proximity, position, and/or direction. (1MG.2.4)</li> <li>• identify solid figures. (KMG.2.1/1MG.2.2/2MG.2.1/3MG.2.5)</li> </ul>		<ul style="list-style-type: none"> <li>• determine the missing addend in an addition number sentence. (2AF.1.1/4AF.1.1)</li> <li>• sort or classify objects according to attributes that are similar such as size, shape, and color. (1PS.1.1)</li> <li>• identify the next item in a pattern. (KPS.1.2/2PS.2.1)</li> <li>• determine which operational symbol is missing from an equation. (3AF.1.3)</li> <li>• write addition or subtraction number sentences which represent real world situations. (3AF.1.1/5AF.1.2/1AF.1.1)</li> </ul>	<ul style="list-style-type: none"> <li>• determine the length of an object. (2MG.1.3)</li> </ul>

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• subtract two two-digit whole numbers without regrouping. (1NS.2.6/2NS.2.2/3NS.2.1)</li> <li>• subtract whole numbers with up to three digits without regrouping. (2NS.2.2/3NS.2.1/4NS.3.1)</li> </ul>				

\* not in standards

## Scaled Score values from 1961 - 2080

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• solve story problems that require the addition of two two-digit whole numbers. (1NS.2.6/2NS.2.2/2AF.1.2/3NS.2.1)</li> <li>• apply the symbols <math>&lt;</math>, <math>&gt;</math>, and <math>=</math> to solve various number sentences.*</li> <li>• add money expressed in decimal form that does not require regrouping. (2NS.5.0/3NS.3.3)</li> <li>• identify an object that is divided into a specific number of equal parts.*</li> <li>• add one- to two-digit whole numbers with regrouping. (1NS.2.6/2NS.2.2/3NS.2.1/4NS.3.1)</li> <li>• order whole numbers from least to greatest. (KNS.1.2)</li> <li>• be able to represent equivalent decimals using money amounts, including coins and bills. (1NS.1.5)</li> <li>• relate the various simple fractions to one whole unit. (2NS.4.2)</li> <li>• add decimals that do not require regrouping. (5NS.2.1)</li> <li>• compare whole numbers up to ten thousand. (3NS.1.2/4NS.1.2)</li> </ul>	<ul style="list-style-type: none"> <li>• identify congruent shapes. (4MG.3.3)</li> <li>• recognize which shapes can be combined to form a given shape. (2MG.2.2)</li> <li>• identify similar figures.*</li> </ul>	<ul style="list-style-type: none"> <li>• read a pictograph. (1PS.1.2/2PS.1.4)</li> <li>• read a bar graph. (1PS.1.2/2PS.1.0)</li> <li>• read a table. (1PS.1.2/2PS.1.4)</li> </ul>	<ul style="list-style-type: none"> <li>• complete a number pattern. (2PS.2.2/KPS.1.2./2PS.2.1)</li> <li>• identify a number sentence within an addition/subtraction fact family. (1NS.2.2/2NS.2.1)</li> <li>• complete a counting pattern. (1PS.2.1/2PS.2.2)</li> <li>• continue geometric patterns. (2PS.2.1)</li> </ul>	<ul style="list-style-type: none"> <li>• approximate and measure elapsed time by applying the following terms: before or after; yesterday, today, or tomorrow; day or night, morning, afternoon, or evening; and hour or half-hour. (KMG.1.2/KMG.1.0/1MG.1.2)</li> <li>• read a thermometer.*</li> <li>• solve problems involving calendars.*</li> <li>• measure capacity.*</li> </ul>

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• identify odd or even numbers.*</li> <li>• compare decimal numbers up to the hundredths position using the order symbols <math>&gt;</math>, <math>&lt;</math>, and <math>=</math>. (4NS.1.2)</li> <li>• be able to identify the value of a group of coins. (1NS.1.5/2NS.5.1)</li> <li>• perform the addition of two- and three-digit whole numbers with regrouping. (2NS.2.2/3NS.2.1/4NS.3.1)</li> <li>• identify the components of a multiplication or division fact family. (3NS.2.3)</li> <li>• subtract money expressed in decimal form that does not require regrouping. (2NS.5.0/3NS.3.3)</li> <li>• add three whole numbers with one to two digits each. (4NS.3.1)</li> </ul>				

\* not in standards

## Scaled Score values from 2081 - 2200

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• subtract decimals that do not require regrouping. (5NS.2.1)</li> <li>• demonstrate knowledge of place value using tens and hundreds. (1NS.1.4/2NS.1.1/3NS.1.3)</li> <li>• check the correctness of an answer by using the inverse operation. (1NS.2.2/2NS.2.1)</li> <li>• write whole numbers in expanded notation. (2NS.1.2/3NS.1.5)</li> <li>• multiply one-digit whole numbers. (3NS.2.2)</li> <li>• estimate a fractional part. (2NS.4.2)</li> <li>• solve story problems involving adding up to three whole numbers. (2AF.1.2/4NS.3.1)</li> <li>• order fractions that have common denominators.*</li> <li>• identify the fractional portion of a given set.*</li> <li>• add decimals that require regrouping. (5NS.2.1)</li> <li>• connect simple fractions with their equivalent pictures. (2NS.4.2/4NS.1.7)</li> <li>• compare the values of more than one group of coins. (1NS.1.5/2NS.5.1)</li> </ul>	<ul style="list-style-type: none"> <li>• identify squares and rectangles. (1MG.2.1/2MG.2.1/3MG.2.3/3MG.2.1)</li> <li>• identify shapes in real world objects and drawings.*</li> </ul>	<ul style="list-style-type: none"> <li>• read and compare information in a table. (2PS.1.4)</li> <li>• determine events as being most likely to occur. (3PS.1.1)</li> <li>• interpret a bar graph. (2PS.1.0)</li> </ul>	<ul style="list-style-type: none"> <li>• identify the missing symbol for a multiplication or division number sentence. (3AF.1.3)</li> <li>• continue a number pattern. (2PS.2.1)</li> <li>• determine the missing number in a subtraction number sentence. (2AF.1.1/4AF.1.1)</li> <li>• determine the missing factor in a multiplication sentence. (3AF.1.2/4AF.1.1)</li> </ul>	<ul style="list-style-type: none"> <li>• order objects according to their length. (KMG.1.1/1MG.1.1)</li> <li>• find the perimeter of a figure with the sides labeled. (3MG.1.3/4MG.1.4)</li> <li>• tell time in five minute intervals using an analog clock.*</li> <li>• determine the weight of a given object.*</li> <li>• convert time between weeks and days and/or minutes and hours. (2MG.1.4/3MG.1.4)</li> <li>• tell time to the nearest minute using an analog clock.*</li> <li>• measure time in clock terms (hours, minutes) within a story problem.*</li> <li>• determine the volume of the figure through models. (3MG.1.2)</li> </ul>

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>connect fractions to pictorial models and/or connect models of these types to fractions.*</li> </ul>				

\* not in standards

## Scaled Score values from 2201 - 2320

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• match word names to whole numbers up to one million. (4NS.1.1)</li> <li>• add two numbers with two decimal places that require regrouping. (5NS.2.1/4NS.2.1)</li> <li>• subtract one- to three-digit whole numbers where regrouping is required. (2NS.2.2/3NS.2.1/4NS.3.1)</li> <li>• round whole numbers to the nearest 10, 100, or 1000. (3NS.1.4)</li> <li>• recognize number sentences that illustrate the inverse operations of multiplication and division.*</li> <li>• estimate the results of whole number addition problems. (2NS.6.0)</li> <li>• multiply whole numbers with two or more digits by whole numbers with one digit, regrouping when necessary. (3NS.2.4/4NS.3.2)</li> </ul>	<ul style="list-style-type: none"> <li>• identify various geometric figures. (1MG.2.1/2MG.2.1/3MG.2.1)</li> <li>• identify parallel lines. (4MG.3.1/5MG.2.1)</li> </ul>	<ul style="list-style-type: none"> <li>• identify the most likely outcome. (3PS.1.1)</li> <li>• interpret a table. (1PS.1.2/2AF.1.3/2PS.1.4)</li> <li>• interpret a pictograph. (1PS.1.2/2AF.1.3/2PS.1.4)</li> <li>• determine events as being least likely to occur. (3PS.1.1)</li> <li>• interpret information presented in a tally chart. (2PS.1.4/1PS.1.2)</li> <li>• identify the least likely outcome. (3PS.1.1)</li> </ul>	<ul style="list-style-type: none"> <li>• demonstrate the associative property of multiplication. (3AF.1.5)</li> <li>• write number sentences to illustrate situations involving multiplying whole numbers. (5AF.1.2)</li> <li>• extend geometric patterns. (2PS.2.1)</li> </ul>	<ul style="list-style-type: none"> <li>• choose the appropriate measure for determining weight, length, or size. (3MG.1.1/3MG.1.4)</li> <li>• exhibit an understanding of reasonableness of results when working with measurement.*</li> </ul>

\* not in standards

## Scaled Score values from 2321 - 2440

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• subtract decimals that require regrouping. (5NS.2.1)</li> <li>• subtract two numbers with two decimal places that require regrouping. (5NS.2.1/4NS.2.1)</li> <li>• add two numbers with three decimal places that require regrouping. (5NS.2.1/4NS.2.1)</li> <li>• divide one- to two-digit whole numbers by one-digit whole numbers with no remainders. (3NS.2.5/4NS.3.4/4NS.3.2)</li> <li>• subtract two numbers with three decimal places that require regrouping. (5NS.2.1)</li> <li>• determine the correct order of operations when more than one operation is to be performed. (4AF.1.2)</li> <li>• approximate the location of a decimal on a number line. (4NS.1.9/5NS.1.5)</li> <li>• be able to solve story problems involving adding or subtracting decimals. (2AF.1.2/5NS.2.1/4NS.2.1)</li> <li>• make change using coins and bills. (2NS.5.1/3NS.3.3)</li> <li>• estimate the results of whole number subtraction problems. (2NS.6.0)</li> </ul>	<ul style="list-style-type: none"> <li>• identify shapes that are congruent. (4MG.3.3)</li> <li>• identify figures with a line of symmetry. (4MG.3.4)</li> </ul>	<ul style="list-style-type: none"> <li>• determine events as being equally likely to occur. (3PS.1.1)</li> <li>• read a double bar graph. (4PS.1.3)</li> <li>• determine the chances of simple events which have equally likely outcomes. (3PS.1.1)</li> </ul>	<ul style="list-style-type: none"> <li>• determine the missing divisor or dividend in a division sentence. (3AF.1.2/4AF.1.1)</li> <li>• write division number sentences which represent real world situations. (3AF.1.1/5AF.1.2)</li> <li>• determine the missing elements of a series of numbers which create a pattern. (2PS.2.1)</li> <li>• identify when information is missing or extraneous. (3MR.1.1/4MR.1.1)</li> <li>• determine missing or extraneous information in problem solving scenarios. (3MR.1.1/4MR.1.1/6MR.1.1/7MR.1.1 (HSEE))</li> <li>• identify the output of number machines.*</li> <li>• read a given story problem and identify the operation needed to solve the problem.*</li> </ul>	<ul style="list-style-type: none"> <li>• calculate length of time through addition and subtraction.*</li> <li>• find measurements from scale drawings.*</li> <li>• convert units of time. (3MG.1.4)</li> <li>• determine the length of a line segment using a given line with distance and points marked on it.*</li> </ul>

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• solve real world problems by determining that multiplication is needed to solve the problem, multiplying the appropriate numbers, and regrouping. (4NS.3.2)</li> <li>• multiply a three-digit whole number by a two-digit whole number. (4NS.3.2/4NS.3.3)</li> <li>• multiply a given dollar amount by a whole number. (3NS.3.3/5NS.2.1)</li> <li>• divide one- to two-digit whole numbers by one-digit whole numbers producing a remainder. (4NS.3.2/4NS.3.4)</li> <li>• identify an expression that is equivalent to an expression with exponents. (5NS.1.3/7NS.2.1 (HSEE)/7AF.2.1 (HSEE))</li> <li>• solve real world problems involving division of whole numbers with three digits by whole numbers with one digit, with or without remainders. (4NS.3.2)</li> <li>• add integers with the same sign. (5NS.2.1/6NS.2.3)</li> <li>• place a series of decimal numbers in order from least to greatest or from greatest to least. (4NS.1.2)</li> </ul>				

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• divide whole numbers with three or more digits by whole numbers with one digit. (3NS.2.5/4NS.3.2/4NS.3.4)</li> </ul>				

## Scaled Score values from 2441 - 2560

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• subtract two fractions with common denominators. (3NS.3.2)</li> <li>• be able to solve story problems involving multiplying a decimal and a whole number. (5NS.2.1)</li> <li>• add two or more decimals which have one to four decimal places. (5NS.2.1)</li> <li>• add two fractions with common denominators. (3NS.3.2)</li> <li>• add three numbers with three or more places after the decimal point. (5NS.2.1)</li> <li>• solve real world problems by determining that division is required.*</li> <li>• use illustrations to order common fractions. (3NS.3.1)</li> <li>• divide a three-digit whole number by a two-digit whole number. (5NS.2.2)</li> <li>• solve story problems that require multiple steps.*</li> <li>• determine equivalent fractions. (2NS.4.2/3NS.3.1)</li> <li>• multiply or divide integers with different signs. (6NS.2.3)</li> </ul>	<ul style="list-style-type: none"> <li>• identify a certain geometric figure by reading a description of the figure. (4MG.3.8)</li> <li>• record and plot ordered pairs of whole numbers in a rectangular coordinate system.*</li> <li>• identify and classify various triangles. (3MG.2.2/4MG.3.7/5MG.2.1/3MG.2.1)</li> <li>• be able to explain why two figures are or are not similar.*</li> <li>• identify various angles in a given figure. (3MG.2.4/4MG.3.5/5MG.2.1)</li> <li>• locate points on a grid using ordered pairs.*</li> <li>• identify intersecting and/or perpendicular lines. (4MG.3.1/5MG.2.1)</li> <li>• define various angles in a given figure. (4MG.3.5)</li> <li>• recognize the reflection or rotation of an image.*</li> </ul>	<ul style="list-style-type: none"> <li>• determine the probability of an event.*</li> <li>• predict the outcomes of probability experiments. (3PS.1.4/4PS.2.2)</li> </ul>	<ul style="list-style-type: none"> <li>• determine the output values of a given function.*</li> <li>• choose the story problem that corresponds to a given equation.*</li> </ul>	<ul style="list-style-type: none"> <li>• find the perimeter of a polygon. (4MG.1.4/5MG.1.4)</li> <li>• convert units of standard length between yards, feet, and inches. (3AF.1.4/3MG.1.4/6AF.2.1)</li> <li>• identify various tools of measurement.*</li> <li>• solve story problems involving elapsed time.*</li> <li>• find the area of a rectangle when a formula is given. (4MG.1.4/5MG.1.1)</li> </ul>

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• obtain solutions to multiple step, real world problems through the application of the four basic operations used with whole numbers.*</li> <li>• multiply a decimal and a whole number where regrouping is required. (5NS.2.1)</li> <li>• convert improper fractions into mixed numbers.*</li> <li>• demonstrate understanding of the inverse relationship between multiplication and division through a word problem.*</li> <li>• change mixed numbers to improper fractions.*</li> <li>• approximate the location of a fraction on a number line. (4NS.1.9/5NS.1.5)</li> </ul>				

\* not in standards

## Scaled Score values from 2561 - 2680

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• divide a decimal number by a whole number. (5NS.2.1)</li> <li>• compare fractions that are illustrated as drawings. (3NS.3.1)</li> <li>• be able to solve story problems involving subtracting decimals. (5NS.2.1)</li> <li>• apply the rules of divisibility.*</li> <li>• order a set of integers by value.*</li> <li>• compare integers using the ordering symbols <math>&gt;</math>, <math>&lt;</math>, and <math>=</math>, or with phrases.*</li> <li>• identify the place value of decimal numbers up to the thousandths place.*</li> <li>• be able to solve story problems that involve the multiplication or division of dollar amounts written in decimal form. (5NS.2.1)</li> <li>• multiply fractions without reducing. (5NS.2.4/6NS.2.1/6NS.2.2)</li> <li>• solve a story problem requiring multiple calculations.*</li> <li>• convert improper fractions to mixed numbers or vice versa.*</li> </ul>	<ul style="list-style-type: none"> <li>• recognize or define the properties of polygons. (4MG.3.8)</li> <li>• give a name to an ordered pair in the coordinate plane. (5AF.1.4/5PS.1.4/5PS.1.5)</li> <li>• find and name points with ordered pairs of integers. (5AF.1.4/5PS.1.4/5PS.1.5)</li> <li>• identify the line(s) of symmetry in a figure. (4MG.3.4)</li> <li>• describe three-dimensional figures in terms of their edges, vertices, and faces. (4MG.3.6)</li> </ul>	<ul style="list-style-type: none"> <li>• determine the probability of an event and express it as a ratio in fraction form. (6PS.3.3 (HSEE))</li> <li>• determine common events to be impossible, less likely, equally likely, more likely, or certain. (3PS.1.1)</li> <li>• read a circle graph.*</li> <li>• interpret a double bar graph. (4PS.1.3)</li> <li>• interpret data read from a line graph. (4PS.1.3)</li> <li>• calculate the mean of a set of data.*</li> <li>• determine the average of a given set of numbers within a mathematical or problem solving situation. (5PS.1.1/6PS.1.1 (HSEE))</li> <li>• calculate the mode within a mathematical or problem solving situation. (2PS.1.3/4PS.1.2/5PS.1.1/6PS.1.1 (HSEE))</li> <li>• determine the average of a set of given numbers within the context of a real world problem. (5PS.1.1)</li> </ul>	<ul style="list-style-type: none"> <li>• identify the expression to be used in solving a word problem. (5AF.1.2)</li> <li>• solve a mathematical proportion using algebraic methods. (6NS.1.3)</li> <li>• evaluate a given variable expression by substituting the given values. (6AF.1.2)</li> <li>• solve quadratic equations in real world situations. (ALGEBRA-1 14.0 (HSEE))</li> </ul>	<ul style="list-style-type: none"> <li>• determine the area of a rectangular figure by counting the squares within the figure.*</li> <li>• solve measurement story problems. (6AF.2.1/4MG.1.4)</li> <li>• find the volume of a figure when a formula is given. (5MG.1.3/5MG.1.4)</li> <li>• calculate the area of a rectangle given its measurements. (GEOMETRY 10.0/4MG.1.4)</li> </ul>

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• calculate with exponents. (5NS.1.3/7NS.2.1 (HSEE)/7AF.2.1 (HSEE))</li> <li>• estimate the product of two decimals through the thousandths place. (5NS.1.1)</li> <li>• add integers with different signs. (5NS.2.1/6NS.2.3)</li> <li>• add two fractions with different denominators without reducing. (5NS.2.3/6NS.2.1)</li> <li>• compare fractions with different denominators. (4NS.1.9/5NS.1.5)</li> <li>• be able to solve story problems by dividing decimals up to the hundredths position (in both the divisor and dividend). (5NS.2.1)</li> <li>• apply properties of proportion to solve problems.*</li> <li>• be able to solve a story problem involving dividing a whole number by a decimal. (5NS.2.1)</li> <li>• multiply two numbers with two decimal places each. (5NS.2.1)</li> <li>• multiply two numbers with three decimal places each. (5NS.2.1)</li> <li>• divide integers where there are no remainders. (6NS.2.3)</li> </ul>				

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• add positive and/or negative decimals. (7NS.1.2 (HSEE))</li> <li>• identify prime or composite numbers. (4NS.4.2)</li> <li>• order fractions with different denominators. (4NS.1.9/5NS.1.5)</li> <li>• find the product of more than two positive and negative numbers.*</li> </ul>				

\* not in standards

## Scaled Score values from 2681 - 2800

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• compare decimals in the context of a real life scenario to determine which is the least or greatest. (6NS.1.1)</li> <li>• solve a word problem requiring two or more integer operations. (6NS.2.3)</li> <li>• subtract two fractions with different denominators without reducing. (5NS.2.3/6NS.2.1)</li> <li>• apply ratio and proportion concepts to solve real world scenario problems. (6NS.1.2/6NS.1.3)</li> <li>• divide two decimal numbers out to a remainder of zero. (5NS.2.1)</li> <li>• add more than two integers. (6NS.2.3)</li> <li>• solve real world problems using integers.*</li> <li>• multiply integers with the same sign. (6NS.2.3)</li> <li>• subtract two mixed numbers without reducing. (5NS.2.3/6NS.2.1)</li> <li>• divide two decimal numbers out to a remainder of zero after annexing two zeros. (5NS.2.1)</li> <li>• estimate the sum of decimal numbers. (4NS.2.1/4NS.2.2/5NS.1.1)</li> </ul>	<ul style="list-style-type: none"> <li>• identify and define circle parts. (4MG.3.2)</li> <li>• classify quadrilaterals based on their side lengths or angle measures. (4MG.3.8)</li> <li>• classify types of triangles. (3MG.2.2/4MG.3.7/3MG.2.1)</li> <li>• define the properties of quadrilaterals. (4MG.3.8)</li> <li>• be able to apply the meaning of parallel lines, perpendicular lines, and/or skew lines to obtain problem solutions. (7MG.3.6 (HSEE))</li> </ul>	<ul style="list-style-type: none"> <li>• extrapolate data from a multiple line graph. (4PS.1.3)</li> <li>• calculate the theoretical probability of an event. (6PS.3.1 (HSEE))</li> <li>• predict outcomes based on collected data. (4PS.2.2/6PS.3.1 (HSEE)/6PS.3.2 (HSEE))</li> <li>• interpret data read from a circle graph. (4PS.1.3)</li> <li>• calculate the mean within a mathematical or problem solving situation. (5PS.1.1/6PS.1.1 (HSEE))</li> <li>• interpret and utilize a stem-and-leaf plot. (7PS.1.1 (HSEE))</li> <li>• determine the experimental probability of an event. (4PS.2.2/6PS.3.1 (HSEE))</li> <li>• calculate the odds of an event within a problem solving situation.*</li> </ul>	<ul style="list-style-type: none"> <li>• obtain solutions to one step linear equations. (6AF.1.1)</li> <li>• determine the correct equation for a word problem and solve. (5AF.1.2/7AF.1.1 (HSEE))</li> <li>• create and evaluate algebraic expressions from a given situation. (6AF.1.2/7AF.1.1 (HSEE))</li> <li>• obtain solutions to multiple step equations with one variable. (ALGEBRA-1 5.0 (HSEE))</li> <li>• be able to set up and solve two linear equations that represent a real world problem.*</li> <li>• determine the equation to be used in solving a word problem. (7AF.1.1 (HSEE))</li> </ul>	<ul style="list-style-type: none"> <li>• find the area of a triangle when a formula is given. (5MG.1.1)</li> <li>• convert units of weight within the standard system. (3AF.1.4/3MG.1.4)</li> <li>• find the circumference of a circle given the diameter or radius. (GEOMETRY 8.0)</li> <li>• add or subtract units of measurement.*</li> <li>• convert degrees Celsius to degrees Fahrenheit given the formula. (7MG.1.1(HSEE))</li> <li>• calculate temperature changes.*</li> <li>• add length measurements.*</li> <li>• add and subtract units of measurement when given in different units.*</li> <li>• convert units of capacity within either the metric or standard system. (3MG.1.4/6AF.2.1/7MG.1.1 (HSEE))</li> <li>• convert either standard or metric units of measurement. (3AF.1.4/6AF.2.1/7MG.1.1 (HSEE))</li> </ul>

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• add two mixed numbers without reducing. (5NS.2.3/6NS.2.1)</li> <li>• divide two fractions. (5NS.2.4/6NS.2.1/6NS.2.2)</li> <li>• work with percents to find the percent of a number, find what percent one number is of another, and/or find a number when a percent is given. (5NS.1.2/6NS.1.4)</li> <li>• identify the GCF or LCM of two given numbers. (6NS.2.4)</li> <li>• solve an arithmetic problem with whole numbers which requires multiple operations. (3NS.2.8/4AF.1.2)</li> <li>• be able to solve story problems involving ordering decimals. (6NS.1.1)</li> <li>• estimate the solution to subtraction problems involving decimals. (4NS.2.2/5NS.1.1)</li> <li>• be able to solve story problems that involve dividing a decimal by a whole number. (5NS.2.1)</li> <li>• compare the sums of integers. (6NS.2.3/6NS.1.1)</li> <li>• solve story problems involving subtracting two fractions with different denominators without reducing. (5NS.2.3/6NS.2.1)</li> </ul>				

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• solve story problems involving adding two fractions with different denominators without reducing. (5NS.2.3/6NS.2.1)</li> <li>• calculate combinations using the counting principle.*</li> <li>• add two mixed numbers in the context of a story problem. (5NS.2.3/6NS.2.1)</li> <li>• solve story problems using estimates with fractions.*</li> <li>• solve story problems involving the rate/measure of items. (6NS.1.2/6AF.2.3/ALGEBR A-1 15.0 (HSEE))</li> <li>• multiply a whole number by a fraction without reducing. (5NS.2.4/6NS.2.1)</li> <li>• add positive and/or negative fractions. (7NS.1.2 (HSEE))</li> <li>• convert mixed numbers to decimals. (4NS.1.6/7NS.1.3 (HSEE)/7NS.1.5 (HSEE))</li> <li>• subtract integers with different signs. (5NS.2.1/6NS.2.3)</li> <li>• write decimals as fractions or mixed numbers. (4NS.1.5/4NS.1.6/5NS.1.2/7NS.1.5 (HSEE))</li> <li>• divide a whole number by a mixed number or vice versa. (5NS.2.4/6NS.2.1).</li> </ul>				

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• write numbers given in scientific notation in standard form. (7NS.1.1 (HSEE))</li> <li>• be able to solve decimal problems where order of operations is needed. (6NS.2.3)</li> <li>• compare products of positive and negative fractions. (6NS.1.1)</li> <li>• convert fractions to decimals. (4NS.1.6/7NS.1.3 (HSEE)/7NS.1.5 (HSEE))</li> <li>• subtract integers with the same sign. (6NS.2.3)</li> <li>• add mixed numbers in vertical or horizontal formats. (6NS.2.1)</li> </ul>				

\* not in standards

## Scaled Score values from 2801 - 2920

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>subtract positive and/or negative decimals. (7NS.1.2 (HSEE))</li> <li>divide fractions and/or mixed numbers in the context of a story problem. (5NS.2.5/6NS.2.1)</li> <li>subtract positive and/or negative fractions. (7NS.1.2 (HSEE))</li> <li>express a decimal number as a percent. (5NS.2.1)</li> <li>perform subtraction with mixed numbers with regrouping, but no reducing. (5NS.2.3/6NS.2.1)</li> <li>subtract two mixed numbers in the context of a story problem. (5NS.2.3/6NS.2.1)</li> <li>divide two mixed numbers. (5NS.2.4/6NS.2.1)</li> <li>be able to solve a story problem that requires multiple calculations with decimal numbers. (7NS.1.2 (HSEE))</li> <li>multiply a mixed number by a whole number. (5NS.2.4/6NS.2.1)</li> <li>use correct order of operations to simplify algebraic expressions with real numbers. (6NS.2.3)</li> </ul>	<ul style="list-style-type: none"> <li>identify and calculate the interior angles of a given figure. (GEOMETRY 12.0/5MG.2.2/6MG.2.2)</li> <li>define, recognize, and/or apply alternate interior, alternate exterior, corresponding, and vertical angles. (GEOMETRY 7.0/6MG.2.1)</li> <li>name, describe, or define a given figure.*</li> <li>classify triangles according to their side lengths and/or angle measures. (4MG.3.7)</li> </ul>	<ul style="list-style-type: none"> <li>find measures of central tendency including mode, median, mean, and/or range for real world figures. (PROB&amp;STAT 6.0/5PS.1.1/6PS.1.1 (HSEE))</li> <li>calculate the range within a mathematical or problem solving situation. (2PS.1.3/6PS.1.1 (HSEE))</li> <li>solve real world problem situations using tree diagrams. (4PS.2.1)</li> <li>find and use the most appropriate measure of central tendency in a real world context. (6PS.1.4 (HSEE))</li> <li>find the probability of mutually exclusive events and inclusive events. (6PS.3.4 (HSEE))</li> <li>formulate predictions based on the probability of simple events. (6PS.3.1 (HSEE))</li> <li>find the number of ways several objects may be arranged using the fundamental counting principle within a real world situation. (ALGEBRA-2 19.0)</li> <li>extrapolate data from a circle graph.*</li> </ul>	<ul style="list-style-type: none"> <li>solve a system of two equations with two variables through substitution. (ALGEBRA-1 9.0 (HSEE)/ALGEBRA-2 2.0)</li> <li>evaluate expressions for given replacement values of variables using the order of operations. (6AF.1.3/7AF.1.2 (HSEE))</li> <li>solve inequalities using basic operations.*</li> <li>evaluate expressions. (7AF.1.2 (HSEE))</li> <li>combine like terms in order to simplify an expression. (ALGEBRA-1 4.0 (HSEE))</li> <li>find the solution to two-variable systems of linear equations. (ALGEBRA-1 9.0 (HSEE))</li> <li>solve equations with two variables using basic operations.*</li> <li>show the equation or expression resulting from the application of the distributive property. (ALGEBRA-1 4.0 (HSEE)/5AF.1.3/6AF.1.3/7AF.1.3 (HSEE))</li> <li>perform conversions between variable expressions and word phrases.*</li> </ul>	<ul style="list-style-type: none"> <li>convert units of weight within either the metric or standard system. (6AF.2.1/7MG.1.1 (HSEE))</li> <li>apply metric conversion skills (converting within metric system) to solve real world application problems. (6MG.2.1/7MG.1.1 (HSEE))</li> <li>solve problems involving scale factors, using ratio and proportion.*</li> <li>calculate the area of a given parallelogram. (GEOMETRY 8.0/5MG.1.1/GEOMETRY 10.0)</li> <li>calculate the area of a triangle using the correct formula. (GEOMETRY 10.0/5MG.1.1/5MG.1.4)</li> <li>subtract length measurements.*</li> <li>solve a story problem involving elapsed time and the conversion of units of time.*</li> <li>convert units of capacity within either the metric or standard system. (6AF.2.1/7MG.1.1 (HSEE))</li> </ul>

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• order numbers given in the form of fractions, decimals, and percents. (5NS.1.2/6NS.1.1/7NS.1.3 (HSEE))</li> <li>• be able to solve story problems involving multiplying decimals. (5NS.2.1)</li> <li>• multiply two mixed numbers. (5NS.2.4/6NS.2.1)</li> <li>• multiply two fractions in the context of a story problem without reducing. (5NS.2.5/6NS.2.1/6NS.2.2)</li> <li>• divide positive and negative fractions. (7NS.1.2 (HSEE))</li> </ul>		<ul style="list-style-type: none"> <li>• calculate the median within a mathematical or problem solving situation. (4PS.1.2/5PS.1.1/6PS.1.1 (HSEE))</li> </ul>	<ul style="list-style-type: none"> <li>• determine solutions for equations where absolute value is involved. (ALGEBRA-1 3.0 (HSEE))</li> <li>• solve real world inequalities.*</li> <li>• complete function tables.*</li> <li>• write equations based on word problems. (6AF.1.1/7AF.1.1 (HSEE))</li> <li>• multiply or divide monomials. (ALGERBA-1 10.0/7AF.2.2 (HSEE)/ALGEBRA-2 3.0)</li> </ul>	

\* not in standards

## Scaled Score values from 2921 - 3040

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>• determine the number of permutations of <math>n</math> items taken <math>m</math> at a time within a real world context. (ALGEBRA-2 19.0)</li> <li>• multiply fractions in the context of a story problem. (5NS.2.5/6NS.2.1/6NS.2.2)</li> <li>• solve problems that use rates, ratios, and/or proportion in a variety of applications. (7AF.4.2 (HSEE)/ALGEBRA-1 15.0 (HSEE))</li> <li>• add and subtract radicals.*</li> <li>• solve story problems involving multiple operations with fractions.*</li> <li>• solve fraction problems where the order of operations is needed.*</li> <li>• write whole and/or decimal numbers in scientific notation. (7NS.1.1 (HSEE))</li> <li>• solve an open number sentence which includes absolute value expressions. (ALGEBRA-1 3.0 (HSEE)/ALGEBRA-2 1.0/7NS.2.5 (HSEE))</li> </ul>	<ul style="list-style-type: none"> <li>• identify the line(s) of symmetry in a figure. (4MG.3.4)</li> <li>• identify, describe, or apply knowledge of various angles including adjacent, vertical, straight, acute, right, obtuse, supplementary, and complementary. (6MG.2.1)</li> <li>• apply knowledge of angles, angle bisectors, perpendicular bisectors, and/or congruent angles to solve geometry problems. (7MG.3.1 (HSEE))</li> <li>• perform a translation onto an ordered pair given the rule of translation. (GEOMETRY 22.0)</li> <li>• complete geometric proofs. (GEOMETRY 2.0)</li> <li>• calculate the sum of the angles of a polygon. (GEOMETRY 12.0)</li> <li>• determine the properties which are specific to kites or trapezoids. (4MG.3.8)</li> <li>• recognize and/or evaluate tangent, sine, and/or cosine for an acute angle of a right triangle. (GEOMETRY 18.0)</li> </ul>	<ul style="list-style-type: none"> <li>• be able to estimate a line of best fit for a given set of data.*</li> <li>• find the probability of dependent or independent events in a real world context. (PROB&amp;STAT 1.0/PROB&amp;STAT 2.0/6PS.3.5 (HSEE))</li> </ul>	<ul style="list-style-type: none"> <li>• determine the midpoint between two points. (GEOMETRY 17.0)</li> <li>• graph absolute value equations on the coordinate plane.*</li> <li>• graph equations of the form <math>y = c</math> and <math>x = c</math>. (7AF.3.3 (HSEE))</li> <li>• multiply two polynomials. (ALGEBRA-1 10.0 (HSEE)/ALGEBRA-2 3.0)</li> <li>• determine a function rule to explain tables of related input-output variables. (4AF.1.4)</li> <li>• simplify exponential expressions. (ALGEBRA-1 4.0 (HSEE)/7NS.2.1 (HSEE)/7NS.2.3 (HSEE)/7AF.1.2 (HSEE)/7AF.2.1 (HSEE))</li> <li>• state the domain and/or range of a given relation. (ALGEBRA-1 17.0 (HSEE))</li> <li>• perform addition and/or subtraction of polynomials. (ALGEBRA-1 10.0 (HSEE)/ALGEBRA-2 3.0)</li> <li>• solve literal equations for a specific variable.*</li> </ul>	<ul style="list-style-type: none"> <li>• convert degrees Fahrenheit to degrees Celsius.*</li> <li>• apply measuring procedures and formulas to solve story problems.*</li> <li>• solve a real world problem by solving for the area of a triangle.*</li> <li>• determine the arc length of a circle.*</li> <li>• calculate the area of a parallelogram. (GEOMETRY 8.0)</li> <li>• calculate the circumference of a circle when no formula is given. (GEOMETRY 8.0/5MG.1.4/6MG.1.1)</li> <li>• calculate the area of a triangle or trapezoid. (GEOMETRY 8.0/5MG.1.4)</li> </ul>

\* not in standards

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
	<ul style="list-style-type: none"> <li>• demonstrate knowledge of the four quadrants of the coordinate plane and the attributes of points in each of these quadrants.*</li> <li>• apply SAS, AAS, and/or ASA theorems to determine the congruence of triangles. (GEOMETRY 5.0/7MG.3.4 (HSEE))</li> </ul>		<ul style="list-style-type: none"> <li>• multiply two binomials of the first degree resulting in a trinomial. (ALGEBRA-1 10.0 (HSEE)/ALGEBRA-2 3.0)</li> <li>• graphically represent systems of equations and identify the solution from the graph. (ALGEBRA-1 9.0 (HSEE)/ALGEBRA-2 2.0)</li> <li>• graph the solution to simple and compound one variable inequalities on a number line. (7AF.1.5 (HSEE))</li> <li>• multiply a monomial and a polynomial. (ALGEBRA-1 10.0 (HSEE)/ALGEBRA-2 3.0)</li> <li>• graph a linear equation. (ALGEBRA-1 6.0 (HSEE)/5AF.1.5/7AF.3.3 (HSEE))</li> <li>• solve a one variable equation that requires more than one operation. (7AF.4.1 (HSEE))</li> <li>• obtain solutions to literal equations.*</li> <li>• solve quadratic equations by applying the quadratic formula. (ALGEBRA-1 19.0 (HSEE)/ALGEBRA-1 20.0 (HSEE))</li> <li>• solve quadratic equations with two variables by graphing. (ALGEBRA-1 21.0 (HSEE)/ALGEBRA-2 2.0)</li> <li>• calculate the slope of a line.*</li> </ul>	

\* not in standards

## Scaled Score values 3041 or larger

Number & Operations	Geometry	Data Analysis & Probability	Algebra	Measurement
<ul style="list-style-type: none"> <li>determine the number of possible combinations of a group of items in a real world context. (ALGEBRA-2 19.0)</li> <li>obtain solutions to real world problems by applying permutations or combinations. (ALGEBRA-2 18.0)</li> </ul>	<ul style="list-style-type: none"> <li>determine new points of a figure that is transposed across a line of reflection. (GEOMETRY 22.0/7MG.3.2 (HSEE))</li> <li>solve real world right triangle problems using trigonometric concepts. (GEOMETRY 19.0)</li> <li>identify the following transformations: reflection, rotation, and/or translation. (GEOMETRY 22.0/7MG.3.2 (HSEE))</li> <li>apply the properties of a perpendicular bisector in solving both mathematical and/or real world problems.*</li> <li>apply concepts involving the corresponding parts of congruent triangles. (GEOMETRY 5.0/7MG.3.4 (HSEE))</li> <li>use the Pythagorean theorem to determine the unknown side length of a right triangle. (GEOMETRY 15.0/7MG.3.3 (HSEE))</li> </ul>	<ul style="list-style-type: none"> <li>determine the probability of independent events given in the context of a real world situation. (PROB&amp;STAT 2.0/6PS.3.5 (HSEE))</li> <li>find the possibility of given outcomes occurring by applying theoretical probability. (6PS.3.1 (HSEE))</li> <li>decide whether a given event is independent or dependent and solve. (6PS.3.5 (HSEE))</li> <li>determine the probability of dependent events given in the context of a real world situation. (PROB&amp;STAT 2.0/6PS.3.5 (HSEE))</li> </ul>	<ul style="list-style-type: none"> <li>factor the difference of two squares. (ALGEBRA-1 11.0 (HSEE)/ALGEBRA-2 4.0)</li> <li>graph inequalities which have two variables. (ALGEBRA-1 6.0 (HSEE))</li> <li>write linear equations. (ALGEBRA-1 7.0 (HSEE))</li> <li>determine whether a given relationship is a function. (ALGEBRA-1 16.0 (HSEE)/ALGEBRA-1 18.0 (HSEE))</li> <li>graph a system of inequalities and identify the solution set. (ALGEBRA-1 9.0 (HSEE)/ALGEBRA-2 2.0)</li> <li>determine the distance between two points. (GEOMETRY 17.0/7AF.4.2 (HSEE))</li> <li>solve for the value of a variable in a two variable equation.*</li> </ul>	<ul style="list-style-type: none"> <li>determine the length of a side of a figure when given the area or the perimeter.*</li> <li>calculate the volume of a sphere. (GEOMETRY 9.0)</li> <li>calculate the volume of a given cylinder or cone. (GEOMETRY 9.0/6MG.1.3)</li> <li>calculate the volume of a given prism or pyramid. (GEOMETRY 9.0/5MG.1.4/6MG.1.3)</li> <li>determine the surface area of a three-dimensional figure. (GEOMETRY 9.0)</li> <li>calculate the area of a circle when no formula is given. (GEOMETRY 8.0/6MG.1.1)</li> </ul>

\* not in standards