

8<sup>th</sup> Grade Math  
The Number System  
CCSS "I Can"  
Statements



CCSS.MATH.CONTENT.8.NS.A.1

I can show that every  
number has a decimal.



CCSS.MATH.CONTENT.8.NS.A.1

I can change every  
repeating decimal into a  
rational number.



CCSS.MATH.CONTENT.8.NS.A.1

I can show that the  
decimal expansion  
eventually repeats for  
rational numbers.



CCSS.MATH.CONTENT.8.NS.A.1

I can change a  
repeating decimal  
expansion into a  
rational number.



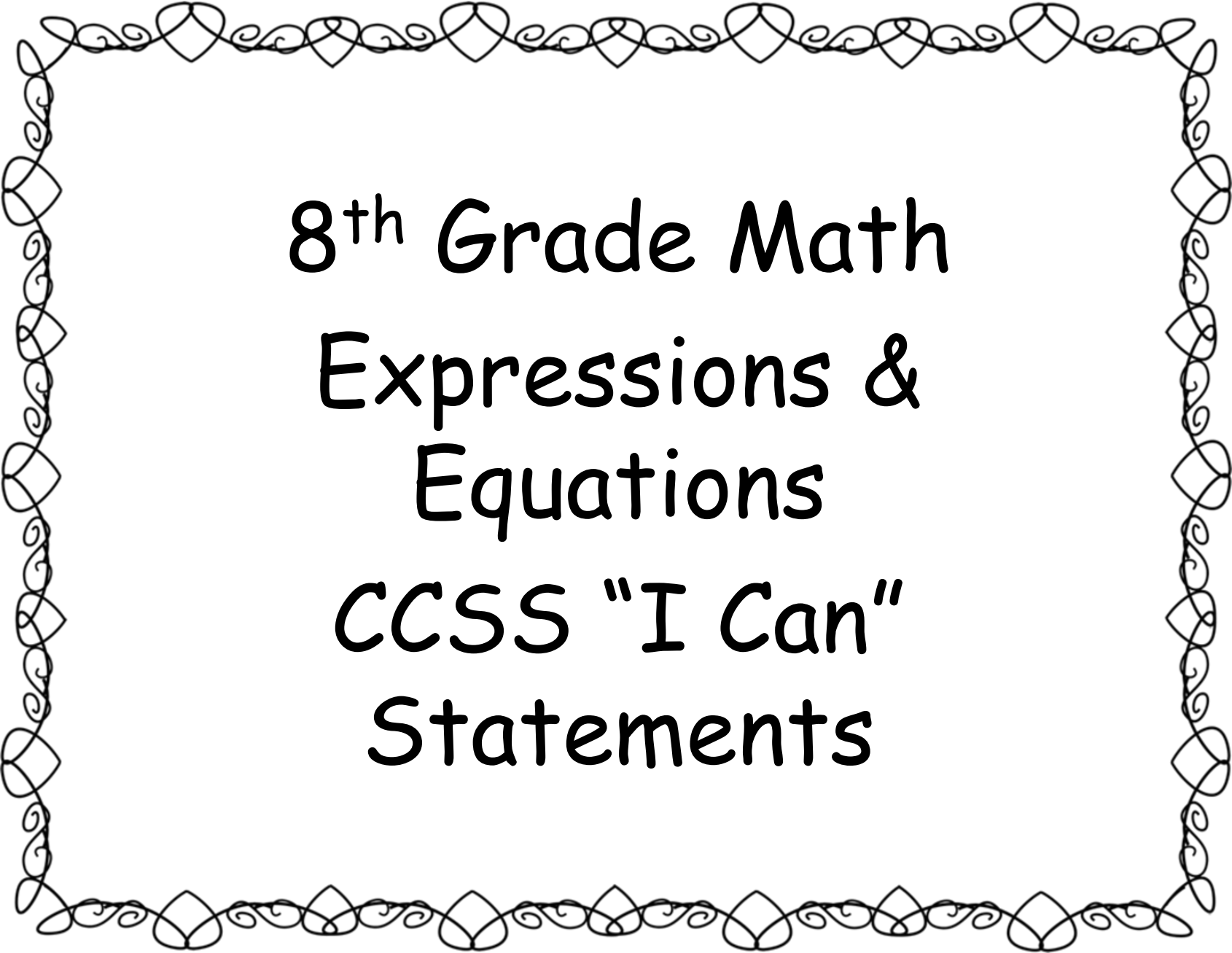
CCSS.MATH.CONTENT.8.NS.A.2

I can use rational approximations of irrational numbers to compare the sizes of irrational numbers, locate, and plot them approximately on a number line diagram, and then estimate the value of the expressions.



CCSS.MATH.CONTENT.8.NS.A.2

I can use estimate  
values to compare two  
or more irrational  
numbers.



8<sup>th</sup> Grade Math  
Expressions &  
Equations  
CCSS "I Can"  
Statements





CCSS.MATH.CONTENT.8.EE.A.1

I can use the properties  
of integer exponents to  
simplify expressions.



CCSS.MATH.CONTENT.8.EE.A.2

I can use square and cube root symbols to represent solutions to equations of the form  $x^2=p$  and  $x^3=p$ , where  $p$  is a positive rational number.



CCSS.MATH.CONTENT.8.EE.A.2

I can evaluate the  
square root of a  
perfect square and the  
cube root of a perfect  
cube.



CCSS.MATH.CONTENT.8.EE.A.2

I can understand that  
the square root of 2 is  
irrational.



CCSS.MATH.CONTENT.8.EE.A.3

I can write an  
estimation of a large  
quantity by expressing  
it as the product of a  
single-digit number and  
a positive power of ten.



CCSS.MATH.CONTENT.8.EE.A.3

I can write an estimation  
of a very small quantity  
by expressing it as the  
product of a single-digit  
number and a negative  
power of ten.



CCSS.MATH.CONTENT.8.EE.A.3

I can compare  
quantities written as  
the product of a  
single-digit number and  
a power of ten.



CCSS.MATH.CONTENT.8.EE.A.4

I can solve operations  
(+, -,  $\times$ ,  $\div$ ) with two numbers  
expressed in scientific  
notation, including  
problems that include  
both decimals and  
scientific notation.





CCSS.MATH.CONTENT.8.EE.A.4

I can use scientific notation and choose units of appropriate size for very large or very small measurements.



CCSS.MATH.CONTENT.8.EE.A.4

I can interpret  
scientific notation that  
has been generated by  
technology.



CCSS.MATH.CONTENT.8.EE.B.5

I can graph  
proportional  
relationships,  
interpreting the unit  
rate as the slope of  
the graph.



CCSS.MATH.CONTENT.8.EE.B.5

I can use a table, an equation or graph to decide the unit rate of a proportional relationship.



CCSS.MATH.CONTENT.8.EE.B.5

I can use the unit rate  
of a graphed  
proportional  
relationship to compare  
different proportional  
relationships.



CCSS.MATH.CONTENT.8.EE.B.6

I can use similar triangles to explain why the slope  $m$  is the same between two points on a non-vertical line in a coordinate plane.



CCSS.MATH.CONTENT.8.EE.B.6

I can explain that an equation in the form of  $y=mx$  will represent the graph of a proportional relationship with a slope of  $m$  and  $y$ -intercept of 0.



CCSS.MATH.CONTENT.8.EE.B.6

I can explain that an equation in the form of  $y = mx + b$  represents the graph of a linear relationship with a slope of  $m$  and a  $y$ -intercept of  $b$ .





CCSS.MATH.CONTENT.8.EE.C.7

I can solve linear  
equations in one  
variable.



CCSS.MATH.CONTENT.8.EE.C.7.A

I can simplify a linear equation by using the distributive property and combining like terms.



CCSS.MATH.CONTENT.8.EE.C.7.A

I can give examples of  
linear equations with  
one solution, infinitely  
many solutions or  
no solutions.



CCSS.MATH.CONTENT.8.EE.C.7.B

I can solve linear equations with rational number coefficients, including equations when solutions require expanding expressions using the distributive property and combining like terms.



CCSS.MATH.CONTENT.8.EE.C.8

I can analyze and solve  
pairs of simultaneous  
linear equations.



CCSS.MATH.CONTENT.8.EE.C.8.A

I can explain solutions  
to a system of two  
linear equations in two  
variables as the point  
of intersection of their  
graph.



CCSS.MATH.CONTENT.8.EE.C.8.A

I can describe the point of intersection between two lines as the point that satisfies both equations at the same time.



CCSS.MATH.CONTENT.8.EE.C.8.B

I can solve a system of  
two equations (linear) in  
two unknowns  
algebraically.





CCSS.MATH.CONTENT.8.EE.C.8.B

I can identify cases in which a system of two equations in two unknowns has no solution or an infinite number of solutions.



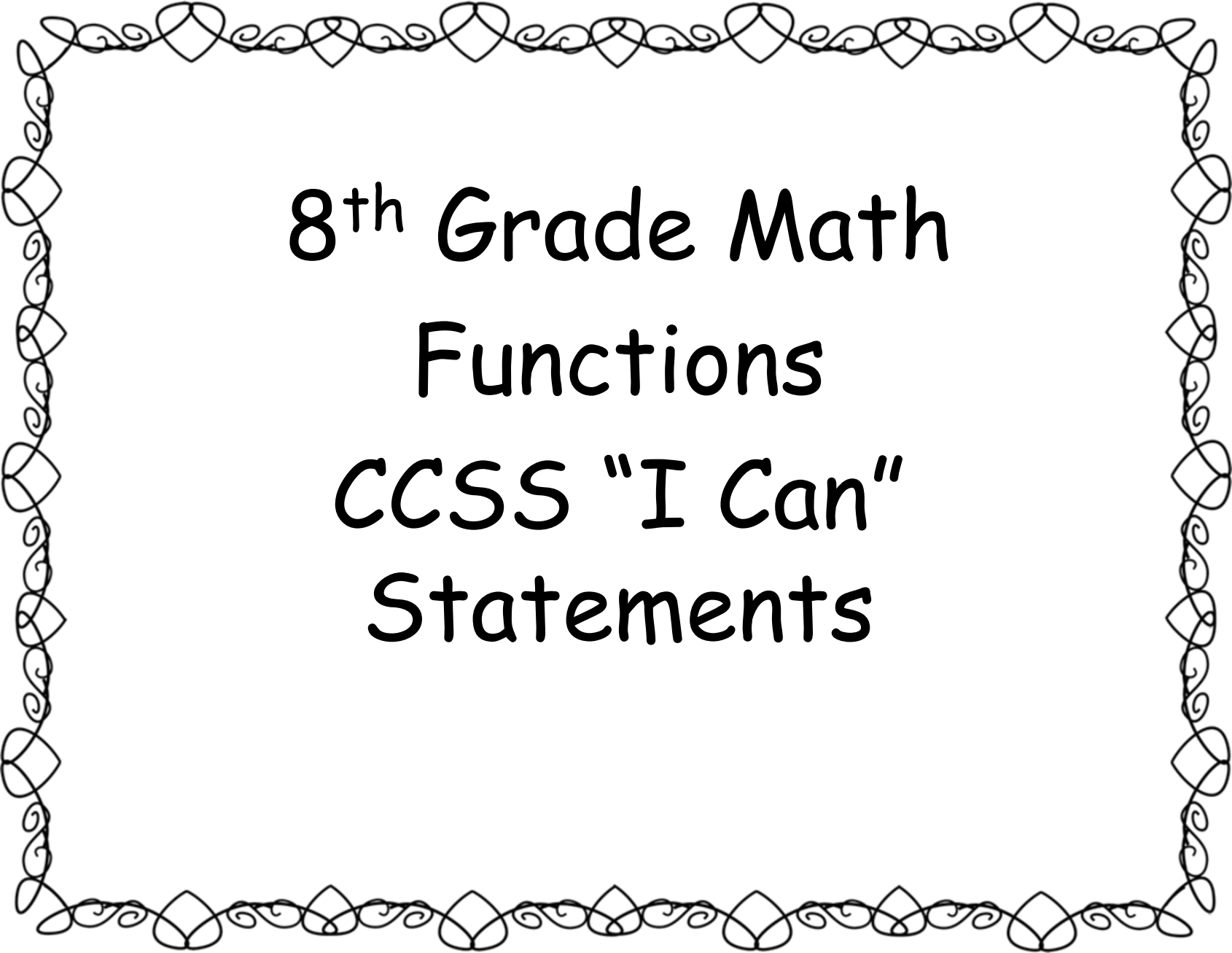
CCSS.MATH.CONTENT.8.EE.C.8.B

I can solve simple cases  
of systems of two  
linear equations in two  
variables by inspection.



CCSS.MATH.CONTENT.8.EE.C.8.C

I can solve real-world  
and mathematical  
problems leading to two  
linear equations in two  
variables.



8<sup>th</sup> Grade Math  
Functions  
CCSS "I Can"  
Statements



CCSS.MATH.CONTENT.8.F.A.1

I can define a function as a rule, where for each input there is exactly one output.



CCSS.MATH.CONTENT.8.F.A.1

I can show the relationship between inputs and outputs of a function by graphing them as ordered pairs on a coordinate grid.



CCSS.MATH.CONTENT.8.F.A.2

I can determine the  
properties of a function  
given the inputs and  
outputs in a table.



CCSS.MATH.CONTENT.8.F.A.2

I can compare the properties of two functions that are represented differently (as equations, tables, graphs or given verbally).





CCSS.MATH.CONTENT.8.F.A.3

I can explain why the equation  $y=mx+b$  represents a linear function and then find the slope and y-intercept in relation to the function.



CCSS.MATH.CONTENT.8.F.A.3

I can give examples of relationships and create a table of values that can be defined as a non-linear function.



CCSS.MATH.CONTENT.8.F.B.4

I can create a function  
to model a linear  
relationship between  
two quantities.



CCSS.MATH.CONTENT.8.F.B.4

I can determine the rate of change and initial value of the function from decryption of the relationship of two  $(x,y)$  values, including reading a table or graph.



CCSS.MATH.CONTENT.8.F.B.4

I can find the rate of change and initial value of a linear function in terms of the situation it models and in terms of its graph or a table of values.



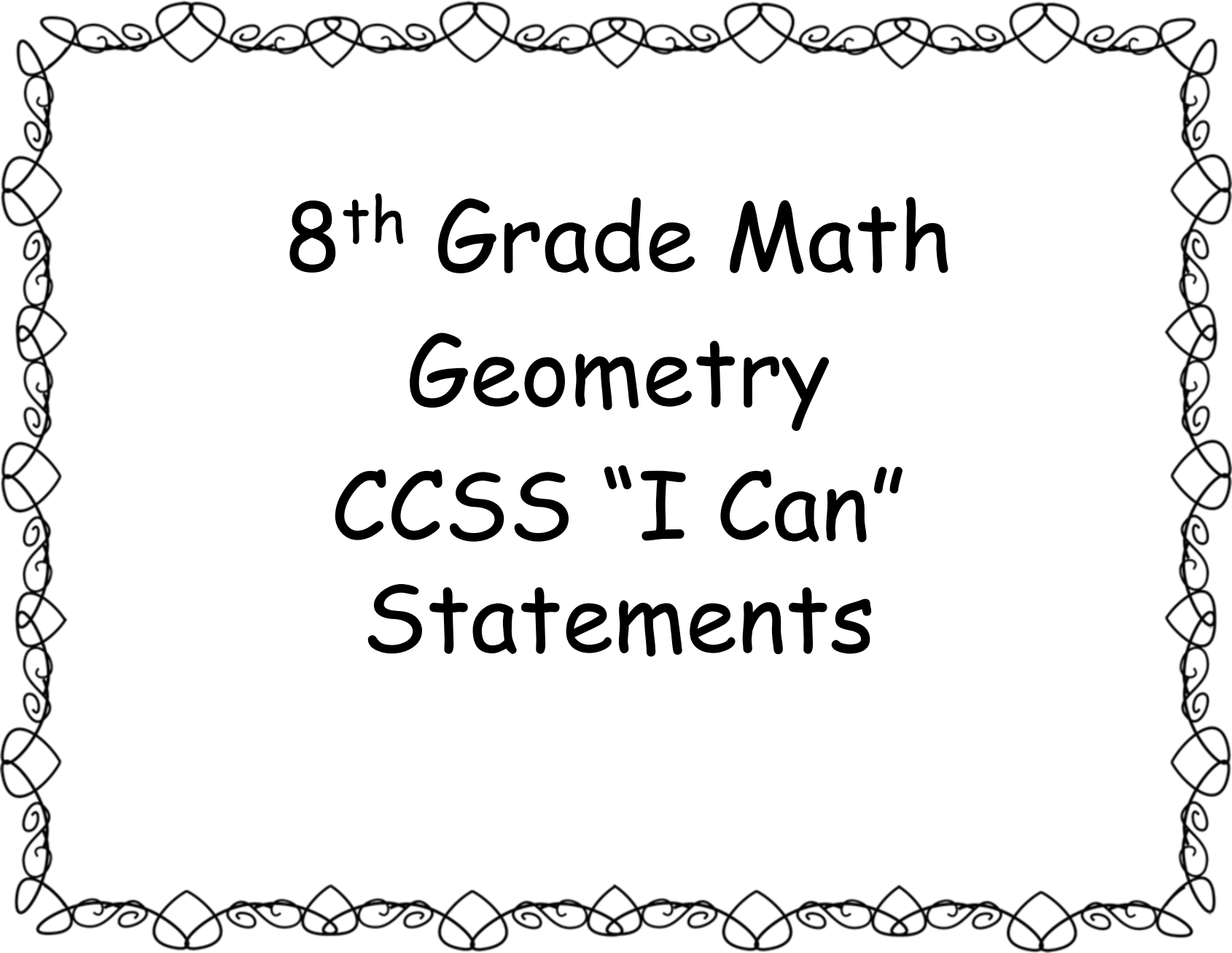
CCSS.MATH.CONTENT.8.F.B.5

I can match the graph  
of a function to a given  
situation.



CCSS.MATH.CONTENT.8.F.B.5

I can sketch a graph  
that exhibits the  
qualitative features of  
a function that has  
been described  
verbally.



8<sup>th</sup> Grade Math  
Geometry  
CCSS "I Can"  
Statements





CCSS.MATH.CONTENT.8.G.A.1

I can verify by  
measuring and  
comparing the  
properties of rotated,  
reflected or translated  
geometric figures.



CCSS.MATH.CONTENT.8.G.A.1.A

I can verify that  
corresponding lines and  
line segments remain  
the same length.



CCSS.MATH.CONTENT.8.G.A.1.B

I can verify that  
corresponding angles  
have the same measure.



CCSS.MATH.CONTENT.8.G.A.1.C

I can verify that  
corresponding parallel  
lines remain parallel.



CCSS.MATH.CONTENT.8.G.A.2

I can explain that a two-dimensional figure is congruent to another if the second figure can be made from the first by rotations, reflections and translations.



CCSS.MATH.CONTENT.8.G.A.2

I can describe a  
sequence of  
transformations that  
shows the congruence  
between two figures.



CCSS.MATH.CONTENT.8.G.A.3

I can describe the changes to the x- and y- coordinates of a figure after either dilation, translation, rotation or reflection.



CCSS.MATH.CONTENT.8.G.A.4

I can explain how  
transformation can be  
used to prove that two  
figures are similar.





CCSS.MATH.CONTENT.8.G.A.4

I can describe a  
sequence of  
transformations that  
either prove or  
disprove that two  
figures are similar.



CCSS.MATH.CONTENT.8.G.A.5

I can informally prove  
that the sum of any  
triangle's interior  
angles will be the same  
measure as a straight  
angle (180 degrees).



CCSS.MATH.CONTENT.8.G.A.5

I can informally prove  
that the sum of any  
polygon's exterior  
angles will be 360  
degrees.



CCSS.MATH.CONTENT.8.G.A.5

I can estimate the relationships and measurements of the angles created when two parallel lines are cut by a transversal.



CCSS.MATH.CONTENT.8.G.B.6

I can use the  
Pythagorean Theorem  
to determine if a given  
triangle is a right  
triangle.



CCSS.MATH.CONTENT.8.G.B.6

I can use algebraic reasoning to relate a visual model to the Pythagorean Theorem.



CCSS.MATH.CONTENT.8.G.B.7

I can draw a diagram  
and use the  
Pythagorean Theorem  
to solve real world  
problems involving right  
triangles.



CCSS.MATH.CONTENT.8.G.B.7

I can draw a diagram to find right triangles in a three-dimensional figure and use the Pythagorean Theorem to calculate various dimensions.





CCSS.MATH.CONTENT.8.G.B.7

I can apply the  
Pythagorean Theorem  
to find an unknown side  
length of a right  
triangle.



CCSS.MATH.CONTENT.8.G.B.8

I can apply the  
Pythagorean Theorem  
to find the distance  
between two points in a  
coordinate system.



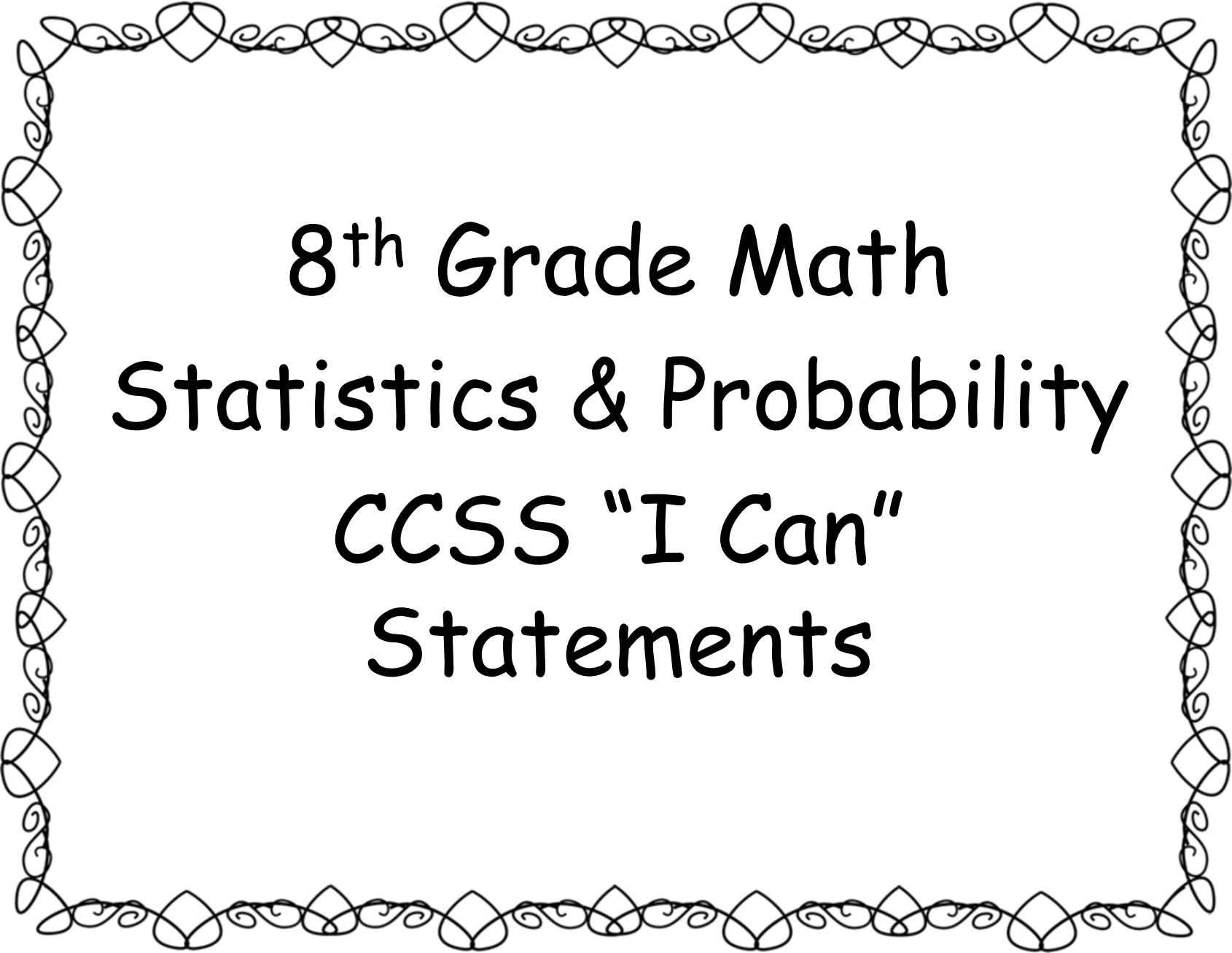
CCSS.MATH.CONTENT.8.G.C.9

I can state and apply  
the formulas for the  
volumes of cones,  
cylinders and spheres.



CCSS.MATH.CONTENT.8.G.C.9

I can solve real world  
problems involving the  
volume of cones,  
cylinders and spheres.



8<sup>th</sup> Grade Math  
Statistics & Probability  
CCSS "I Can"  
Statements



CCSS.MATH.CONTENT.8.SP.A.1

I can plot ordered pairs  
on a coordinate grid  
representing the  
relationship between  
two data sets.



CCSS.MATH.CONTENT.8.SP.A.1

I can describe patterns such as clustering, outliers, positive or negative association, linear association and nonlinear association.



CCSS.MATH.CONTENT.8.SP.A.2

I can recognize if the  
data plotted on a  
scatter plot has a linear  
association.





CCSS.MATH.CONTENT.8.SP.A.2

I can draw a straight line to approximate the linear relationship between the plotted points of two data sets.



CCSS.MATH.CONTENT.8.SP.A.3

I can determine the equation of a trend line that approximates the linear relationships between the plotted points of two data sets.



CCSS.MATH.CONTENT.8.SP.A.3

I can interpret the  
y-intercept and slope  
of an equation based on  
collected data.



CCSS.MATH.CONTENT.8.SP.A.3

I can use the equation  
of a trend line to  
summarize the given  
data and make  
predictions about  
additional data points.



CCSS.MATH.CONTENT.8.SP.A.4

I can create and explain a two-way table to record the frequencies of bivariate categorical values.



CCSS.MATH.CONTENT.8.SP.A.4

I can determine the relative frequencies for rows and/or columns of a two-way table.



CCSS.MATH.CONTENT.8.SP.A.4

I can use relative frequencies and the context of a problem to describe possible associations between two sets of data.