

Mathematics Power Standards Grade 10 Algebra II

 Corvallis School District 509j

Calculations and Estimations
<ul style="list-style-type: none"> MA.CM.CE.09 Develop and use strategies to estimate the results of real number computations, determine the amount of error, and judge the reasonableness of results. MA.CM.CE.12 Use the inverse operations (of nth power and nth root) to solve problems and check solutions.
Statistics and Probability
<ul style="list-style-type: none"> MA.CM.SP.02 Analyze bivariate data and identify the type of function (e.g., linear, quadratic, exponential) that could be used to model the data. MA.CM.SP.07 Determine appropriate designs for simulations (surveys, observational studies, and experiments) and modeling to study a problem and construct empirical probability distributions to represent results. MA.CM.SP.08 <i>Use matrices, histograms, scatter plots, stem-and-leaf plots, and box-and whisker-plots to interpret data.</i> MA.CM.SP.09 <i>Identify examples of populations that are normally distributed.</i> MA.CM.SP.11 <i>Make predictions about populations based on reported sample statistics.</i> MA.CM.SP.12 Understand that inferences about a population drawn from a sample involve uncertainty and that the role of statistics is to measure that uncertainty.
Algebraic Relationships
<ul style="list-style-type: none"> MA.CM.AR.02 Produce a valid conjecture using inductive reasoning by generalizing from a pattern of observations. MA.CM.AR.05 <i>Algebraically represent situations and solve problems involving quadratic and exponential equations, including exponential growth and decay.</i> MA.CM.AR.06 <i>Use graphs (and tables) to solve non-linear equations, including quadratics.</i> MA.CM.AR.10 <i>Translate between and interpret quadratic and exponential (and linear) relationships represented by words, symbols, tables, and graphs.</i> MA.CM.AR.11 <i>Determine and interpret maxima or minima and zeros of quadratic functions, and linear functions where $y = \text{constant}$.</i> MA.CM.AR.15 <i>Model situations, make predictions and inferences, and solve problems using linear, quadratic, and exponential functions.</i> MA.CM.AR.17 <i>Approximate and interpret rates of change in graphical and numeric data.</i>
Measurement
<ul style="list-style-type: none"> MA.CM.ME.02 <i>Solve problems involving unit conversions (e.g., mi/hr to ft/sec) given the unit equivalencies.</i>
Geometry
<ul style="list-style-type: none">
Mathematical Problem Solving
<ul style="list-style-type: none"> MA.CM.PS.01 <i>Interpret the concepts of a problem-solving task and translate them into mathematics.</i> MA.CM.PS.02 <i>Choose strategies that can work and then carry out the strategies chosen.</i> MA.CM.PS.03 <i>Produce identifiable evidence of a second look at the concepts/strategies/calculations to defend a solution.</i> MA.CM.PS.04 <i>Use pictures, symbols, and/or vocabulary to convey the path to the identified solution.</i> MA.CM.PS.05 <i>Accurately solve problems using mathematics.</i>