

**Oregon Mathematics Instructional Framework  
CIM Standards  
Correlated to *Glencoe/McGraw-Hill  
Contemporary Mathematics in Context*  
(Core Plus Mathematics Project)  
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<b>Calculations and Estimations</b>	<b>Course 1</b>	<b>Course 2</b>	<b>Course 3</b>	<b>Course 4</b>
<b>CCG: NUMBERS- Understand numbers, ways of representing numbers, relationships among numbers, and number systems</b>				
Compare real numbers (NAEP 12N1c)	SE: 71,72,90, 239,240,369,459	SE: 50,261,290-3,294-300,309	SE: 36-39,50,194-197,197-201,209-212,212-214	SE: 88,102
Apply proportions to solve problems (NAEP 8N4c) (NCTM 3N3d)	SE: 27, 176-177, 180 TE: T180	SE: 27-29, 247-249 TE: T27	SE: 26-27, 28-31, 40-45 TE: T26-T27, T29-T31, T40-T45	SE: 91-93, 104-105 TE: T116-T118, T136
Order and compare numbers expressed in scientific notation to each other and to other forms of real numbers (NAEP 12N1c)	SE: 122-125,236, 447-452 TE: T122-T125, T236, T449, T450	SE: 50, 238-240,290-293, 301-302 TE: T50	SE: 188-207 TE: T188, T192-T194, T197	SE: 399, 593 TE: T457, T710-T711 SE: 167, 439, 452-455 TG: T207-T208, T529-T533
RECOGNIZE THAT THE SET OF REAL NUMBERS CONTAINS THE SET OF IRRATIONAL NUMBERS AND THE SET OF RATIONAL NUMBERS AND KNOW THE DIFFERENCE BETWEEN THEM (NCTM N41b)	SE: 72,369	SE: 261,290-293,294-300,309, Unit 4 Lesson 4	SE: 36-39	

Locate real numbers on a number line (including approximations of irrational numbers) (NAEP 8A2e)	SE: 72,369	SE: 261,290-293,294-300,309		
Apply equivalent forms of real numbers to solve problems	SE: 236, 447-452 TE: T236, T449, T450	SE: 50, 238-240, 301-302 TE: T50	SE: 188-207 TE: T188, T192-T194, T197	SE: 167, 439, 452-455 TE: T207-T208, T529-T533
<b>CCG: COMPUTATION AND ESTIMATION- Compute fluently and make reasonable estimates</b>				
Compute with real numbers, including absolute value and numbers expressed in scientific notation (NAEP 12N3a) (NCTM 4N3a)	SE: 425	SE: 81-87,90-96,257	SE: 431	SE: 177
Compute with integer exponents and whole number roots	SE: 428	SE: 299-302,303-310	SE: 36,159-164,450	SE: 94
MENTALLY MULTIPLY AND DIVIDE BY POWERS OF 10 TO ESTIMATE RESULTS OF COMPUTATIONS INVOLVING NUMBERS EXPRESSED IN SCIENTIFIC NOTATION (NCTM 4N1A)	SE: 236, 447-452 TE: T236, T449, T450	SE: 50, 238-240, 301-302 TE: T50	SE: 188-207 TE: T188, T192-T194, T197	SE: 167, 439, 452-455 TG: T207-T208, T529-T533

DEVELOP AND use strategies to estimate the results of real number computations, determine the amount of error, AND JUDGE THE REASONABLENESS OF RESULTS (NAEP 4N3b)	SE: 122-125 TE: T122-T125	SE: 50, 290-293, 301-302 TE: T50	SE: Major emphasis in all units and all lessons	SE: Major emphasis in all units and all lessons
Estimate the results of computations with integer powers and roots of real numbers		SE: 238, 278, 281-282, 300-302 TE: T278, T280, T282, T298	SE: 232, 237 TE: T232	
<b>CCG: OPERATIONS AND PROPERTIES- Understand meanings of operations and how they relate to one another</b>				
RECOGNIZE THAT TAKING THE NTH ROOT OF A NUMBER CORRESPONDS TO PRIME FACTORIZATION (NAEP 8N3f)				
Use the inverse operations of nth power and nth root to solve problems AND CHECK SOLUTIONS				
Apply the associative, commutative, and distributive properties to simplify computations with rational numbers (NAEP 12N5f)	SE: 122-125, 220-222 TE: T121	SE: 60-62, 63-65 TE: T60		

USE PROPERTIES OF NUMBERS TO DEMONSTRATE WHETHER ASSERTIONS ARE TRUE OR FALSE (NCTM 4N1d)	SE: 122-125, 220-222 TE: T121	SE: 50, 60-62, 63-65, 290-293, 301-302 TE: T50, T60		
<b>CCG: STATISTICS- Select and use appropriate statistical methods to analyze data</b>				
Estimate from a graph or a set of data the mean and standard deviation of a normal distribution and DRAW CONCLUSIONS ABOUT THE DISTRIBUTION OF DATA USING MEASURES OF CENTER AND SPREAD (e.g., analyze a variety of summary statistics and graphical displays) (NAEP 12S2a) (NCTM 4D2a)	SE: 66-73 TE: T67, T72	SE: 170-178 TE: T170	SE: 346-361, 362-383, 384-415 TE: T347, T350, T351, T363-T364, T367, T384-T390	SE: 276-279 TE: T276-T340
ANALYZE BIVARIATE DATA AND IDENTIFY THE TYPE OF FUNCTION (LINEAR, QUADRATIC, EXPONENTIAL) THAT COULD BE USED TO MODEL THE DATA (NCTM 4D2c)	SE: 75-79, 197 TE: T75-T78	SE: 212-216, 216-218 TE: T212, T216	SE: 184, 292 TE: T184	SE: 180-195, 198-207 TE: T230-T247, T248-T258

<b>CCG: PROBABILITY- Understand and apply basic concepts of probability</b>				
Compute the probability of a compound event (e.g., toss a coin three times to find the probability of two heads) (NAEP 12S4a) (NCTM 4D4e)	SE: 509-510	SE: 513-525	SE: 266 TE: T266	SE: 234, 241-244, 252, 277, 304, 321, 593, 637 TE: T300-T301
Determine probabilities of dependent and independent events (e.g., use colored marbles with and without replacement) (NAEP 12S4f) (NCTM 4D4d)			SE: 266 TE: T266	SE: 252
Use conditional probability to solve problems (e.g., from a sample set fro the roll of two tetrahedral die, given that a sum is even, what is the probability that the sum is 6?) (NCTM 4D4d)			SE: 266 TE: T266	SE: 252 TE: T300-T301

Determine ALL POSSIBLE OUTCOMES OF A PARTICULAR EVENT OR ALL POSSIBLE arrangements of objects in a given set by applying counting strategies, combinations, and permutations (NAEP 12S4h) (NCTM 4N1c)	SE: 509-512 TE: T509-T512	SE: 457-459, 460-461, 462-464 TE: T460, T462	SE: 110, 135-152 TE: T110, T135-T136, T139, T140-T142	SE: 216-237, 240-255, 270-274 TE: T269-T287, T289-T305, T323-T328
<b>CCG: COLLECT AND DISPLAY DATA- Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them</b>				
Determine appropriate designs for simulations (surveys, observational studies, and experiments) and modeling to study a problem AND CONSTRUCT EMPIRICAL PROBABILITY DISTRIBUTIONS TO REPRESENT RESULTS	SE: 29-30, 105-106, 138 TE: T29-T30, T105-T106, T138	SE: 170-178 TE: T170	SE: 92-114, 115-120 TE: T92-T96, T101-T102, T115	SE: 276-297 TE: T335-T358
Use matrices, histograms, scatter plots, stem-and-leaf plots, and box-and-whisker plots to interpret data	SE: 269, 17-28, 75, 9, 32, 52-54, 106 TE: T17-T28, T75, T31-T32, T53, T54, T106	SE: 6-42, 58-78, 171, 177 TE: T6-T42, T58-T78, T171, T177	SE: 137, 144, 205 TE: T137, T144, T205	SE: 303 TE: T361
Identify examples of populations that are normally distributed (NAEP 12S2e)			SE: 362-383 TE: T362-T383	SE: 319-322 TE: T376-T380

<b>CCG: DATA ANALYSIS AND PREDICTIONS- Develop and evaluate inferences and predictions that are based on data</b>				
Make inferences and predictions from data in histograms, scatter plots, and parallel box plots (NAEP 12S1a, 12S1d) (NCTM 4D1d)	SE: 17, 28, 75-83, 52, 54, 106 TE: T17, T52, T53, T54, T79-T83, T106	SE: 197-199, 212-214 TE: T197-T199	SE: 346-361, 362-383 TE: T346-T347, T350-T351, T353, T362-T364, T371	
Make predictions about populations based on reported sample statistics (NAEP 12S3d)	SE: 17-19, 24, 52-54, 59-61 TE: T17, T19, T21, T24, T52-T54, T59, T61	All of Unit 3 (pages 169-231)	SE: 132-152	SE: 280, 285-286, 289, 295, 311 TE: T341, T357-T358, T391, T704-T705
UNDERSTAND THAT INFERENCES ABOUT A POPULATION DRAWN FROM A SAMPLE INVOLVE UNCERTAINTY AND THAT THE ROLE OF STATISTICS IS TO MEASURE THAT UNCERTAINTY	SE: 17-19, 24, 52-54, 59-61 TE: T17, T19, T21, T24, T52-T54, T59, T61	All of Unit 3 (pages 169-231)	SE: 132-152	SE: 280, 285-286, 289, 295, 311 TE: T341, T357-T358, T391, T704-T705
<b>CCG: PATTERNS AND FUNCTIONS- Understand patterns, relations, and functions</b>				
REPRESENT, and generalize sequences resulting from linear, quadratic, and exponential relationships using recursive or explicit formulas, tables of values, and graphs (NAEP 12A1a, 12A1b, 12A1l) (NCTM 4A1a)			SE: 488-504, 506, 507, 510, 531-533 TE: T488-T504, T506, T507, T510, T531-T533	SE: 259-264, 651-656, 660, 669, 670 TE: T308-T312, T756-T768, T782

PRODUCE A VALID CONJECTURE USING INDUCTIVE REASONING BY GENERALIZING FROM A PATTERN OF OBSERVATIONS			SE: 267, 271 TE: T267, T271	
Evaluate and make a table for two-variable formulas and match a graph or table of values to its formula (NCTM 4A1f)	SE: 141-147 TE: T143, T144-T145	SE: 266-271, 271-273 TE: T265	SE: 182, 186, 195, 199, 207 TE: T182, T186, T195, T199, T207	SE: 108-133 TE: T139-T171
Identify independent and dependent variables and determine the domain and range of a function in a problem situation (NAEP 12A1h)	SE: 127, 175, 178, 188 TE: T175, T188		SE: 177, 438 TE: T177, T438	
<b>CCG: ALGEBRAIC RELATIONSHIPS- Represent and analyze mathematical situations and structures using algebraic symbols</b>				
Algebraically represent situations and solve problems involving quadratic and exponential equations, including exponential growth and decay (NAEP 12A2m) (NCTM 4A2c)	SE: 141-147 TE: T143, T144-T145	SE: 266-271, 271-273 TE: T265	SE: 182, 186, 195, 199, 207 TE: T182, T186, T195, T199, T207	SE: 108-133 TE: T139-T171
Use graphs to solve non-linear equations, including quadratics	SE: 141-147 TE: T143, T144-T145	SE: 266-271, 271-273 TE: T265	SE: 2-24, 25-45, 46-62, 68-85 TE: T47, T49, T51, T55, T90K, T90L	SE: 22-49 TE: T21-T59

<p>Represent and solve systems of linear equations with 2 variables using simultaneous equations and by graphing (NAEP 12A2g) (MAP !VC9) (NCTM 4A2b)</p>	<p>SE: 226-232 TE: T226, T230, T231</p>	<p>SE: 59-78 TE: T59-T78</p>	<p>SE: 46-62 TE: T46-T62</p>	<p>SE: 367 TE: 423-424</p>
<p>Recognize AND GENERATE equivalent forms for algebraic expressions, including combining like terms and expanding binomials (NAEP 8A3b) (MAP IVA7) (NCTM 4A2a)</p>	<p>SE: 231-232, 233-238, 238-242 TE: T233, T236-T242</p>		<p>SE: 192-197, 197-201, 204-207, 215-217 TE: T192-T201, T204-T207, T215</p>	<p>SE: 412-413</p>
<p>Evaluate algebraic expressions and formulas by substituting real numbers</p>	<p>SE: 121-140, 422-430, 434, 447, 452-453, 455-459, 465-467, 481 TE: T121-T140, T423, T424, T452, T455, T458, T481</p>	<p>SE: 173-5, 238-241, 241-249 TE: T173-5, T238-T249</p>	<p>SE: 215-217</p>	<p>SE: 412-413</p>
<p>Translate between and interpret quadratic and exponential relationships represented by words symbols, tables, and graphs (NAEP 12A2a) (NCTM 4A1b)</p>	<p>SE: 141-147, 420-480 TE: T143, T144-T145, T420-T480</p>	<p>SE: 266-271, 271-273 TE: T265</p>	<p>SE: 170-174, 175-178, 423-440, 480-484 TE: T170-T171, T174-T175, T422-T428</p>	<p>SE: 22-49, 158-177, 360-379 TE: T21, T30, T417</p>

Determine and interpret maxima and minima and zeros of quadratic functions, and linear functions where $y = \text{constant}$ (NAEP 12A1f) (NCTM 4A1c)	SE: 219 TE: T219	SE: 97-108, 278-288 TE: T97-T108, T278-T288	SE: 54-55,60, 170-174, 175-179, 179-186, 453-461 TE: T60, T174, T181	SE: 11, 21, 32, 37-40, 317 TE: T20, T43-T45
GRAPH LINEAR INEQUALITIES IN TWO VARIABLES (NAEP 12A4c)	SE: 211-214 TE: T211-T214		SE: 47, 48, 51, 54, 60, 424 TE: T47-T48, T424,	
GRAPH QUADRATIC AND EXPONENTIAL EQUATIONS (NCTM 4A1b)	SE: 142-145, 420-480	SE: 274-288 TE: T274-T288	SE: 176, 229-233, 238, 425, 432, 499 TE: T229-T233, T425, T427, T431-T433	SE: 24,25, 186-189, 437 TE: T23, T24, T238, T239. T508
Analyze how changing a parameter (i.e., $k$ , $b$ ) in a quadratic or exponential function of the form $y = kx + b$ , $y = kx^2 + b$ , $y = k(x + b)^2$ affects its graph (NAEP 12A1i, 12A1j) (NCTM 4A1d)	SE: 182-186, 434 TE: T182-T183, T434	SE: 238-240, 274-278 TE: T274	SE: 226-239, 441-461, 462-479, 484-485 TE: T226-T228, T229, T441- T442, T449-450, T463, T465	SE: 23-31 TE: T22-33

<b>CCG: MODELING- Use mathematical models to represent and understand quantitative relationships</b>				
Model situations, make predictions and inferences, and solve problems using linear, quadratic, and exponential functions (NAEP 12A2I, 12A4i) (NCTM 4A3b)	SE: 131-136, 269, 455 TE: T269, T455	SE: 59, 60-65 TE: T60	SE: 170-174, 175-178, 423-440, 480-484 TE: T170-T171, T174-T175, T422-T428	SE: 2-19, 22-49, 52-71, 74-78, 360-379 TE: T4-T19, T21-T59, T61-T86, TT88-T95, T415-T439
Determine when data represented in a table or graph represents a linear, quadratic, or exponential relationship (NAEP 12A2I) (NCTM 4A3a)	SE: 75-83, 102-107 TE: T102-T105	SE: 188-194, 197-199, 212-214 TE: T188-T190	SE: 92-114, 115-120, 346-361, 362-383 TE: T92-T114, T115-T120	
<b>CCG: CHANGE- Analyze change in various contexts</b>				
Approximate and interpret rates of change in graphical and numeric data (NCTM 4A4a)	SE: 150, 182-186, 193 TE: T150, T182	SE: 81-84, 104-106 TE: T81		SE: 2-19, 22-49
Analyze the nature of change of each variable in a non-linear relationship as suggested by a table of values, a graph or a formula (NCTM 4A4a)	SE: 150, 182-186, 193 TE: T150, T182	SE: 81-84, 104-106 TE: T81		SE: 2-19, 22-49

<b>CCG: UNITS AND TOOLS- Understand measurable attributes of objects and the units, systems and processes of measurement</b>				
Determine the appropriate units, scales, and tools for problem situations involving measurement (NAEP 12M12a) (NCTM 4M1a)	SE: 356-360, 373-376 TE: T355	SE: 235-238, 247-249 TE: T235-T237		
Solve problems involving unit conversions (e.g., mi/hi to ft/sec) given the unit equivalencies (MAP IIB12) (NCTM 4M2d)	SE: 356-360, 373-376 TE: T355	SE: 235-238, 247-249 TE: T235-T237		
DETERMINE THE PRECISION OF A GIVEN MEASURING TOOL (E.G., 1 DEGREE FOR A STANDARD PROTRACTOR) (NCTM 4M2A)				
<b>CCG: DIRECT AND INDIRECT MEASUREMENT- Apply appropriate techniques, tools, and formulas to determine measurements</b>				
DEVELOP and use strategies and formulas for calculating surface area and volume of cones and sphere (NAEP 12M1k) (MAP IIIB10) (NCTM 4M2c)	SE: 356-360, 373-376 TE: T355	SE: 81-86, 235-237 TE: T235		SE: 666-670 TE: T781-T787

Use formulas to solve problems involving finding missing dimensions given perimeter, area, surface area and volume of polygons, circles, prisms, pyramids, cones, cylinders, and spheres (NCTM 4M2c)	SE: 356-360, 373-376 TE: T355	SE: 81-86, 235-237 TE: T235		SE: 666-670 TE: T781-T787
DEVELOP, UNDERSTAND< and use the formula for determining arc length (e.g., portion of a circle) (MAP IIIB6)		SE: 417-431 TE: T419-T421		
Determine perimeter and area of shapes of circles and polygons (annulus, etc.) in context (NAEP 12M1i) (NCTM 4M4b)	SE: 106-7,135-6, 151,240,355-361, 373-376	SE: 236		
Determine the surface area and volume of a complex figure composed of a combination or two or more geometric figures or a figure derived from a regular solid (e.g., hemisphere, frustrum of a cone) (NCTM 4M4b)			SE: 18, 19, 22-24	SE: 515-517

COMPARE AND CONTRAST THE FORMULAS FOR SURFACE AREA AND VOLUME OF CYLINDERS AND CONES	SE: 106-7,135-6, 151,240,355-361, 373-376	SE: 236	SE: 18, 19, 22-24	SE: 515-517
DETERMINE A SHAPE THAT HAS MINIMUM OR MAXIMUM PERIMETER, AREA, SURFACE AREA, OR VOLUME UNDER SPECIFIED CONDITIONS				
MAKE AND use scale drawings and models to solve problems (NAEP 12M2f)				
<b>CCG: PROPERTIES AND RELATIONSHIPS- Analyze characteristics and properties of two- and three-dimensional shapes and develop mathematical arguments about geometric relationships</b>				
DETERMINE DEFINING PROPERTIES THAT CHARACTERIZE CLASSES OF THREE-DIMENSIONAL FIGURES AND THEIR COMPONENT PARTS (MAP IIIA13, IIIA14, IIIA15, IIIA16) (NCTM 3G1a)	SE: 326-382		SE: 18,19, 22-24	SE: 515-517
RECOGNIZE AND REPRESENT THREE-DIMENSIONAL FIGURES AND THEIR COMPONENT PARTS (NCTM 3G1a)	SE: 326-382		SE: 18,19, 22-24	SE: 515-517

Justify and USE THEOREMS INVOLVING THE ANGLES FORMED BY PARALLEL LINES CUT BY A TRANSVERSAL (NAEP 12G3g)			SE: 282-287 TE: T282-T286	
DEVELOP, UNDERSTAND, and apply properties of circles and of inscribed and circumscribed polygons (NAEP 12G3e) (NCTM 4G1a)				
Use measures of sides and of interior and exterior angles of polygons to classify figures and solve problems	SE: 386-387 TE: T386-T387		SE: 295, 554 TE: T295, TE554	
PROVE CONGRUENCE OF TWO TRIANGLES OR THEIR CORRESPONDING COMPONENT PARTS (NCTM 4G1c)			SE: 297-324, 306-309 TE: T304, T306-T309	
Determine the measures of corresponding angles, sides, and corresponding parts of congruent and similar figures (NCTM 4G2b)		SE: 166 TE: T166	SE: 297-324, 306-309 TE: T298, T306-T309	
Use angle, side length and triangle inequality relationships to solve problems (NCTM 4G2b)		SE: 306, 307 TE: T306, T307	SE: 297-324 TE: T297-T324	

Use trigonometric functions, and angle and side relationships of special right triangles (30-60-right triangles and isosceles right triangles) to solve for an unknown length and determine distances and solve problems (NCTM 4G1b) (NCTM 4G1d)	SE: 370, 374, 378, 379 TE: T370, T374, T378, T379	SE: 306, 307 TE: T306, T307	SE: 297-324 TE: T297-T324	
INVESTIGATE RELATIONSHIPS AMONG CHORDS, SECANTS, TANGENTS, INSCRIBED ANGLES, AND INSCRIBED AND CIRCUMSCRIBED POLYGONS OF CIRCLES		SE: 428, 429, 431, 445 TE: T428-T432		
CONSTRUCT AND JUDGE THE VALIDITY OF A LOGICAL ARGUMENT AND GIVE COUNTEREXAMPLES TO DISPROVE A STATEMENT (NAEP 12G3g) (NCTM 4G1c)	SE: 263 TE: T263		SE: 240-246, 265, 266, 274, 312, 328 TE: T240-T246, T265, T266, T274, T312, T328	SE: 258-267 TE: T360-T322
JUSTIFY AND use theorems involving the properties of triangles, quadrilaterals, circles, and their component parts to verify congruence and similarity (NCTM 4G1c)			SE: 280, 287, 290, 291, 294, 295, 300, 301, 304, 306, 309, 312-313, 315, 317, 322-4, 328, 331, 332, 333, 335, 342, 559	

<b>CCG: MODELING- Use visualization, spatial reasoning, and geometric modeling to solve problems</b>				
MODEL, SKETCH, LABEL AND WHERE APPROPRIATE CONSTRUCT CONES AND SPHERES, AND BASIC ELEMENTS OF GEOMETRIC FIGURES (E.G., ALTITUDES, MIDPOINTS, MEDIANS, ANGLE BISECTORS, AND PERPENDICULAR BISECTORS) USING COMPASS AND STRAIGHTEDGE OR TECHNOLOGY (NCTM 4G4a)	SE: 176-177, 256-264, 359 TE: T177, T264, T359,	SE: 123-138, 385-394, 400-411, 541-542 TE: T123, T126, T129, T130,-2, T137-T138, T385, T387, T392-4, T400-T411	SE: 28-35, 39, 41, 297, 298-304, 310-315 TE: T28-T35, T39, T41, T297-T304, T310-T315	
DESCRIBE HOW TWO OR MORE OBJECTS ARE RELATED IN SPACE (E.G., SKEW LINES, THE POSSIBLE WAYS THREE PLANES MIGHT INTERSECT)	SE: 329-349 TE: T329, T334, T342-T344		SE: 293 TE: T293	SE: 515, 522, 525, 527, 539, 546-569 TE: T620, T630, T633, T645, T646, T651-T681

<p>MAKE A MODEL OF A THREE-DIMENSIONAL FIGURE FROM A TWO-DIMENSIONAL DRAWING AND MAKE A TWO-DIMENSIONAL REPRESENTATION OF A THREE-DIMENSIONAL OBJECT THROUGH SCALE DRAWINGS, PERSPECTIVE DRAWINGS, BLUEPRINTS OR COMPUTER SIMULATIONS (NCTM 4G4a)</p>	<p>SE: 329-349 TE: T329, T334, T342-T344</p>			<p>SE: 515, 522, 525, 527, 539, 546-569 TE: T620, T630, T633, T645, T646, T651-T681</p>
<p>Recognize representations of three-dimensional objects from different perspectives and identify cross-sections of three-dimensional objects (NAEP 12G4d) (MAP IIIA19) (NCTM 4G4b)</p>	<p>SE: 329-349 TE: T329, T334, T342-T344</p>			<p>SE: 515, 522, 525, 527, 539, 546-569 TE: T620, T630, T633, T645, T646, T651-T681</p>
<p><b>CCG: COORDINATE GEOMETRY- Specify locations and describe spatial relationships using coordinate geometry and other representational systems</b></p>				
<p>Determine the relative placement (e.g., intersecting, parallel, perpendicular) of two lines on a coordinate plane given the algebraic equations representing them</p>	<p>SE: 182-194, 219 TE: T183-T190, T219</p>	<p>SE: 97-108, 304-305 TE: T97-T108, T304</p>	<p>SE: 21 TE: T21</p>	

Calculate slope, distance and midpoint between points with an emphasis on practical applications (USE COORDINATE FORMULAS)	SE: 182, 186, 207, 216, 369 TE: T182, T186, T207, T216, T369	SE: 81, 84-85, 85-86, 93, 104 TE: T81, T84-T86, T104	SE: 19, 242 TE: T19, T242	
<b>CCG: TRANSFORMATIONS AND SYMMETRY- Apply transformations and use symmetry to analyze mathematical situations</b>				
Use coordinate geometry to determine whether a figure is symmetrical with respect to a line or a point	SE: 273, 334 TE: T273, T334	SE: 109-110 TE: T109-T110		
Determine whether a given pair of figures on a coordinate plane represent a translation, reflection, rotation and/or dilation (NCTM 4G3a)		SE: 109-149 TE: T109-T149		
Determine the image of a figure on a coordinate graph under translations, reflections, and rotations (NCTM 4G3a)		SE: 109-168 TE: T109-T168		
Given a figure and its image on a coordinate graph, determine the translation vector or locate the axis of reflection (NCTM 4G3a)		SE: 109-168 TE: T109-T168		
Determine the coordinates of AND DRAW the dilation of a figure on a coordinate graph (NCTM 4G3a)		SE: 109-168 TE: T109-T168		

Analyze the congruence, similarity, and line or rotational symmetry of figures using transformations (NCTM 3G3b)		SE: 109-168 TE: T109-T168		
<b>CCG: CONCEPTUAL UNDERSTANDING- Select, apply, and translate among mathematical representations to solve problems.</b>				
Interpret the concepts of a problem-solving task and translate them into mathematics	All Units emphasize this concept	All Units emphasize this concept	All Units emphasize this concept	All Units emphasize this concept
<b>CCG: PROCESSES AND STRATEGIES- Apply and adapt a variety of appropriate strategies to solve problems.</b>				
Choose strategies that can work and then carry out the strategies chosen	All Units emphasize this concept	All Units emphasize this concept	All Units emphasize this concept	All Units emphasize this concept
<b>CCG: VERIFICATION- Monitor and reflect on the process of mathematical problem solving.</b>				
Produce identifiable evidence of a second look at the concepts/strategies/calculations to defend a solution	All Units emphasize this concept	All Units emphasize this concept	All Units emphasize this concept	All Units emphasize this concept
<b>CCG: COMMUNICATION- Communicate mathematical thinking coherently and clearly. Use the language of mathematics to express mathematical ideas precisely.</b>				
Use pictures, symbols, and/or vocabulary to convey the path to the identified solution	All Units emphasize this concept	All Units emphasize this concept	All Units emphasize this concept	All Units emphasize this concept
<b>CCG: ACCURACY- Accurately solve problems that arise in mathematics and other contexts.</b>				
Accurately solve problems using mathematics	All Units emphasize this concept	All Units emphasize this concept	All Units emphasize this concept	All Units emphasize this concept