Objective Tracker

| 1Choosing a graph to fit a narrative: Advanced2Determining whether an equation defines a function: Advanced3Determining whether an equation defines a function: Basic4Domain and range from ordered pairs5Domain and range from the graph of a continuous function6Domain and range from the graph of a discrete relation7Domain and range from the graph of a piecewise function | |
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| 2Determining whether an equation defines a function: Advanced3Determining whether an equation defines a function: Basic4Domain and range from ordered pairs5Domain and range from the graph of a continuous function6Domain and range from the graph of a discrete relation7Domain and range from the graph of a piecewise function | |
| 3 Determining whether an equation defines a function: Basic 4 Domain and range from ordered pairs 5 Domain and range from the graph of a continuous function 6 Domain and range from the graph of a discrete relation 7 Domain and range from the graph of a piecewise function | |
| 4 Domain and range from ordered pairs 5 Domain and range from the graph of a continuous function 6 Domain and range from the graph of a discrete relation 7 Domain and range from the graph of a piecewise function | |
| 5 Domain and range from the graph of a continuous function 6 Domain and range from the graph of a discrete relation 7 Domain and range from the graph of a piecewise function | |
| 6 Domain and range from the graph of a discrete relation 7 Domain and range from the graph of a piecewise function | |
| 7 Domain and range from the graph of a piecewise function | |
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| 8 Domain and range of a linear function that models a real-world situation | |
| 9 Domain of a rational function: Excluded values | |
| 10 Domain of a square root function: Advanced | |
| 11 Domain of a square root function: Basic | |
| 12 Evaluating a cube root function | |
| 13 Evaluating a piecewise-defined function | |
| 14 Evaluating a rational function: Problem type 1 | |
| 15 Evaluating a rational function: Problem type 2 | |
| 16 Evaluating functions: Absolute value, rational, radical | |
| 17 Evaluating functions: Linear and quadratic or cubic | |
| 18 Finding a difference quotient for a linear or quadratic function | |
| 19 Finding inputs and outputs of a function from its graph | |
| Finding inputs and outputs of a two-step function that models a real-world 20 situation: Function notation | |
| Finding outputs of a one-step function that models a real-world situation: 21 Function notation | |
| Finding outputs of a two-step function with decimals that models a real-world 22 situation: Function notation | |
| 23 Identifying functions from relations | |
| 24 Set builder and interval notation | |
| 25 Table for a linear function | |
| 26 Table for a square root function | |
| 27 Union and intersection of intervals | |
| 28 Variable expressions as inputs of functions: Problem type 1 | |
| 29 Vertical line test | |
| Objective 2 (33 topics, due on 02/07/2016) | |
| 30 Arithmetic and geometric sequences: Identifying and writing an explicit rule | |
| 31 Basic properties of logarithms | |

| 32 | Change of base for logarithms: Problem type 1 | |
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| 33 | Comparing linear, polynomial, and exponential functions | |
| 34 | Converting between logarithmic and exponential equations | |
| 35 | Converting between natural logarithmic and exponential equations | |
| 36 | Domain of a logarithmic function: Advanced | |
| 37 | Evaluating a logarithmic expression | |
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| 38 | Evaluating an exponential function that models a real-world situation | |
| | Evaluating an exponential function with base e that models a real-world | |
| 39 | situation | |
| 40 | Even and odd functions: Problem type 1 | |
| 41 | Expanding a logarithmic expression: Problem type 1 | |
| 42 | Expanding a logarithmic expression: Problem type 2 | |
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| 43 | Finding a final amount in a word problem on exponential growth or decay | |
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| 44 | Finding a specified term of a geometric sequence given the first terms | |
| 45 | Finding a specified term of an arithmetic sequence given the first terms | |
| 43 | Finding the final amount in a word problem on compound interest | |
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| 47 | Finding the first terms of a geometric sequence using an explicit rule | |
| | Finding the first terms of a sequence using an explicit rule with multiple | |
| 48 | occurrences of n | |
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| 49 | Finding the first terms of an arithmetic sequence using an explicit rule | |
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| 50 | Finding the next terms of a geometric sequence with signed numbers | |
| 51 | Finding the next terms of an arithmetic sequence with integers | |
| 52 | Horizontal line test | |
| 53 | Identifying arithmetic and geometric sequences | |
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| 54 | Identifying arithmetic sequences and finding the common difference | |
| 55 | Identifying geometric sequences and finding the common ratio | |
| 56 | Introduction to compound interest | |
| 57 | Quotient of two functions: Basic | |
| 58 | Sum, difference, and product of two functions | |
| 59 | Writing an equation that models exponential growth or decay | |
| 60 | Writing an explicit rule for an arithmetic sequence | |
| 61 | Writing an exponential function rule given a table of ordered pairs | |
| 62 | Writing an expression as a single logarithm | |
| | Objective 3 (38 topics, due on 02/14/2016) | |

| 63 | Comparing linear, polynomial, and exponential functions | |
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| 64 | Composition of two functions: Advanced | |
| 65 | Composition of two functions: Basic | |
| 66 | Composition of two functions: Domain and range | |
| 67 | Converting between logarithmic and exponential equations | |
| 68 | Converting between natural logarithmic and exponential equations | |
| 69 | Determining whether two functions are inverses of each other | |
| 70 | Evaluating a logarithmic expression | |
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| 71 | Evaluating an exponential function that models a real-world situation | |
| | Evaluating an exponential function with base e that models a real-world | |
| 72 | situation | |
| 73 | Even and odd functions: Problem type 1 | |
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| 74 | Finding a final amount in a word problem on exponential growth or decay | |
| 75 | Finding intercepts of a nonlinear function given its graph | |
| 76 | Finding the average rate of change of a function | |
| 77 | Finding the average rate of change of a function given its graph | |
| 78 | Finding the final amount in a word problem on compound interest | |
| 79 | Finding x- and y-intercepts given the graph of a line on a grid | |
| 80 | Finding x- and y-intercepts of a line given the equation: Advanced | |
| 81 | Finding x- and y-intercepts of the graph of a nonlinear equation | |
| 82 | Graphing a cubic function of the form y = ax3 | |
| 83 | Graphing a function of the form $f(x) = ax^2$ | |
| 84 | Graphing a linear equation of the form y = mx | |
| 85 | Graphing a parabola of the form $y = ax^2$ | |
| 86 | Graphing a piecewise-defined function: Problem type 1 | |
| 87 | Graphing a vertical or horizontal line | |
| 88 | Graphing an absolute value equation of the form y = A x | |
| 89 | Graphing an exponential function: $f(x) = a x$ | |
| 90 | Horizontal line test | |
| 91 | Inverse functions: Linear, discrete | |
| 92 | Inverse functions: Quadratic, cubic, radical | |
| 93 | Inverse functions: Rational | |
| 94 | Quotient of two functions: Basic | |
| 95 | Solving an equation of the form $log_b(a) = c$ | |
| 96 | Sum, difference, and product of two functions | |
| 97 | Table for an exponential function | |
| 98 | Testing an equation for symmetry about the axes and origin | |
| 99 | Writing an equation that models exponential growth or decay | |
| 100 | Writing an exponential function rule given a table of ordered pairs | |

| | Objective 4 (41 topics, due on 02/28/2016) | |
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| 101 | Classifying the graph of a function | |
| 102 | Completing the square | |
| 103 | Domain of a logarithmic function: Advanced | |
| 104 | Graphing a cube root function | |
| 105 | Graphing a cubic function of the form $y = ax^3$ | |
| 106 | Graphing a function of the form f(x) = ax + b: Fractional slope | |
| 107 | Graphing a function of the form f(x) = ax + b: Integer slope | |
| 108 | Graphing a function of the form $f(x) = ax^2$ | |
| 109 | Graphing a function of the form $f(x) = ax2 + c$ | |
| 110 | Graphing a line given its equation in point-slope form | |
| 111 | Graphing a logarithmic function: Advanced | |
| 112 | Graphing a logarithmic function: Basic | |
| 113 | Graphing a parabola of the form $y = (x - h)^2 + k$ | |
| 114 | Graphing a parabola of the form $y = ax^2$ | |
| 115 | Graphing a parabola of the form $y = ax^2 + c$ | |
| 116 | Graphing a piecewise-defined function: Problem type 1 | |
| 117 | Graphing a square root function: Problem type 1 | |
| 118 | Graphing a square root function: Problem type 2 | |
| 119 | Graphing a square root function: Problem type 3 | |
| 120 | Graphing an absolute value equation in the plane: Advanced | |
| 121 | Graphing an absolute value equation in the plane: Basic | |
| 122 | Graphing an absolute value equation of the form y = A x | |
| 123 | Graphing an exponential function and its asymptote: $f(x) = a(b)^x$ | |
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| 124 | Graphing an exponential function and its asymptote: $f(x) = a(e)^{x-b} + c$ | |
| 125 | Graphing an exponential function: $f(x) = a(b)^x$ | |
| 126 | Graphing an exponential function: $f(x) = a^x$ | |
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| 127 | How the leading coefficient affects the graph of an absolute value function | |
| 128 | How the leading coefficient affects the shape of a parabola | |
| 129 | The graph, domain, and range of a logarithmic function | |
| 130 | The graph, domain, and range of an exponential function | |
| 131 | Transforming the graph of a function by reflecting over an axis | |
| 132 | Transforming the graph of a function by shrinking or stretching | |
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| 133 | Transforming the graph of a function using more than one transformation | |
| 134 | Translating the graph of a function: One step | |
| 135 | Translating the graph of a function: Two steps | |
| 136 | Translating the graph of a logarithmic function | |
| 137 | Translating the graph of an absolute value function: One step | |

| 138 | Translating the graph of an absolute value function: Two steps | |
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| 139 | Translating the graph of an exponential function | |
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| 140 | Writing an equation for a function after a vertical and horizontal translation | |
| 141 | Writing an equation for a function after a vertical translation | |
| | Objective 5 (18 topics, due on 03/06/2016) | |
| 142 | Classifying conics given their equations | |
| 143 | Finding the focus of a parabola of the form $ay^2 + by + cx + d = 0$ or $ax^2 + bx + cy + d = 0$ | |
| 144 | Finding the vertex, x-intercepts, and axis of symmetry from the graph of a parabola | |
| 145 | Graphing a circle given its equation in general form: Advanced | |
| 146 | Graphing a circle given its equation in general form: Basic | |
| 147 | Graphing a circle given its equation in standard form | |
| 148 | Graphing a hyperbola centered at the origin: $Ax^2 - By^2 - C = 0$ | |
| 149 | Graphing a hyperbola given its equation in general form | |
| 150 | Graphing a hyperbola given its equation in standard form | |
| 151 | Graphing a parabola of the form $ay^2 + by + cx + d = 0$ or $ax^2 + bx + cy + d = 0$ | |
| 152 | Graphing a parabola of the form $y = ax^2 + bx + c$: Integer coefficients | |
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| 153 | Graphing a parabola of the form $y = ax^2 + bx + c$: Rational coefficients | |
| 154 | Graphing a parabola of the form $y = x^2 + bx + c$ | |
| 155 | Graphing an ellipse centered at the origin: $Ax^2 + By^2 = C$ | |
| 156 | Graphing an ellipse given its equation in standard form | |
| 157 | Writing an equation of a circle given its center and a point on the circle | |
| 158 | Writing an equation of a circle given the endpoints of a diameter | |
| 159 | Writing an equation of a parabola given the vertex and the focus | |
| | Objective 6 (14 topics, due on 03/13/2016) | |
| 160 | Determining the end behavior of the graph of a polynomial function | |
| 161 | Finding horizontal and vertical asymptotes of a rational function: Quadratic numerator or denominator | |
| 162 | Finding local maxima and minima of a function given the graph | |
| 163 | Finding the asymptotes of a rational function: Constant over linear | |
| 164 | Finding the asymptotes of a rational function: Linear over linear | |
| 165 | Finding where a function is increasing, decreasing, or constant given the graph: Interval notation | |
| 166 | Finding x- and y-intercepts given a polynomial function | |
| 167 | Graphing a rational function: Constant over linear | |
| 168 | Graphing a rational function: Linear over linear | |

| 169 | Graphing a rational function: Quadratic over linear | |
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| 170 | Inferring properties of a polynomial function from its graph | |
| 171 | Matching graphs with polynomial functions | |
| 172 | Matching graphs with rational functions: Two vertical asymptotes | |
| 173 | Writing the equation of a rational function given its graph | |
| | Objective 7 (21 topics, due on 03/20/2016) | |
| 174 | Adding or subtracting complex numbers | |
| 175 | Applying the quadratic formula: Exact answers | |
| 176 | Discriminant of a quadratic equation | |
| 177 | Dividing complex numbers | |
| 178 | Finding the maximum or minimum of a quadratic function | |
| 179 | Finding the roots of a quadratic equation with leading coefficient 1 | |
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| 180 | Finding the roots of a quadratic equation with leading coefficient greater than 1 | |
| 181 | Finding the x-intercept(s) and the vertex of a parabola | |
| 182 | Finding zeros of a polynomial function written in factored for | |
| 183 | Multiplying complex numbers | |
| 184 | Simplifying a power of i | |
| 185 | Simplifying a product and quotient involving square roots of negative numbers | |
| 186 | Solving a quadratic equation by completing the square: Exact answers | |
| 187 | Solving a quadratic equation with complex roots | |
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| 188 | Solving a word problem using a quadratic equation with irrational roots | |
| 189 | Solving a word problem using a quadratic equation with rational roots | |
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| 190 | Solving an equation that can be written in quadratic form: Problem type 1 | |
| 191 | Solving an equation written in factored form | |
| 192 | lesting an equation for symmetry about the axes and origin | |
| 193 | Using I to rewrite square roots of negative numbers | |
| 194 | Word problem involving the maximum or minimum of a guadratic function | |
| | Objective 8 (15 topics, due on 04/03/2016) | |
| 195 | Descartes' Rule of Signs | |
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| 196 | Finding a polynomial of a given degree with given zeros: Complex zeros | |
| 197 | Finding a polynomial of a given degree with given zeros: Real zeros | |
| 198 | Finding all possible rational zeros using the rational zeros theorem: Problem type 1 | |
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| 199 | Finding all possible rational zeros using the rational zeros theorem: Problem | |
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| 200 | Linear factors theorem and conjugate zeros theorem | |
| 201 | Polynomial long division: Problem type 1 | |
| 202 | Polynomial long division: Problem type 2 | |
| 203 | Synthetic division | |
| 204 | Using a given zero to write a polynomial as a product of linear factors: Complex zeros | |
| 205 | Using a given zero to write a polynomial as a product of linear factors: Real zeros | |
| 206 | Using the conjugate zeros theorem to find all zeros of a polynomial | |
| 207 | Using the rational zeros theorem to find all zeros of a polynomial: Complex zeros | |
| 208 | zeros | |
| 209 | Using the rational zeros theorem to find all zeros of a polynomial: Rational zeros | |
| | Objective 9 (14 topics, due on 04/24/2016) | |
| 210 | Finding a final amount in a word problem on exponential growth or decay | |
| 211 | Finding the initial or final amount in a word problem on exponential growth or decay | |
| 212 | Finding the rate or time in a word problem on continuous exponential growth or decay | |
| 213 | Finding the time to reach a limit in a word problem on exponential growth or decay | |
| 214 | Solving a multi-step equation involving a single logarithm | |
| 215 | Solving a multi-step equation involving natural logarithms | |
| 216 | Solving an equation involving logarithms on both sides: Problem type 1 | |
| 217 | Solving an equation involving logarithms on both sides: Problem type 2 | |
| 218 | Solving an equation of the form $log_h a = c$ | |
| 219 | Solving an exponential equation by finding common bases: Linear and quadratic exponents | |
| 220 | Solving an exponential equation by finding common bases: Linear exponents | |
| 221 | Solving an exponential equation by using logarithms: Decimal answers, basic | |
| 222 | Solving an exponential equation by using logarithms: Exact answers in logarithmic form | |

| 223 | Solving an exponential equation by using natural logarithms: Decimal answers | |
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| | Objective 10 (13 topics, due on 05/01/2016) | |
| 224 | Classifying systems of linear equations from graphs | |
| 225 | Consistency and independence of a system of linear equations | |
| 226 | Graphically solving a system of linear equations | |
| 227 | Identifying solutions to a system of linear equations | |
| 228 | Solving a 2x2 system of linear equations that is inconsistent or consistent dependent | |
| 229 | Solving a percent mixture problem using a system of linear equations | |
| 230 | Solving a system of linear equations using elimination with addition | |
| 231 | Solving a system of linear equations using elimination with multiplication and addition | |
| 232 | Solving a system of linear equations using substitution | |
| 233 | Solving a system of linear equations with decimal coefficients | |
| 234 | Solving a system of linear equations with fractional coefficients | |
| 235 | Solving a system of nonlinear equations: Problem type 1 | |
| 236 | Solving a word problem using a system of linear equations of the form Ax + By = C | |