# CPM Algebra 2 Objective Roadmap

Students will have the opportunity to:

## Unit 1 — Day 14 Sharpening Pencils: Exploring Functions (EF)

• Start to learn what it means to investigate a function. (Exploring Functions)
Problems: EF-12, EF-29, EF-30, EF-51, EF-70, EF-71, EF-73, EF-85, EF-86, EF-87, EF-88, EF-89

#### Unit 2 — Day 27 The Bouncing Ball: Sequences (BB)

- Find the x- and y-intercepts of a quadratic equation. (Milepost 1) Problems: BB-62, Milepost Number 1 1-10
- Graph a line using slope and y-intercept. (Milepost 2) Problems: BB-66, Milepost Number 2 1-10
- Simplify expressions with positive exponents. (Milepost 3) Problems: BB-107, Milepost Number 3 1-24

### Unit 3 — Day 40 Fast Cars and Depreciation (FX)

- Solve systems of linear equations in two variables. (Milepost 4) Problems: FX-36, Milepost Number 4 1-12
- Multiply polynomials. (Milepost 5)
   Problems: FX-112, Milepost Number 5 1-12
- Factor quadratic expressions. (Milepost 6) Problems: FX-139, Milepost Number 6 1-10

# Unit 4 — Day 53 The Gateway Arch: Parabolas and Other Parent Graphs (PG)

- Solve for one variable in an equation or formula with two or more variables. (Milepost 7) Problems: PG-30, Milepost Number 7 1-12
- Find the slope of the line through two given points and the distance between two points. (Milepost 8)

Problems: PG-53, Milepost Number 8 1-9

• Use function notation and calculate domain and range. (Milepost 9) Problems: PG-149, Milepost Number 9 1-9

#### Unit 5 — Day 66 The Toy Factory: Linear Systems and Matrices (LS)

- Write the equation of a line given two points. (Milepost 10) Problems: LS-53, Milepost Number 10 1-9
- Understand slopes of parallel and perpendicular lines. (Milepost 11) Problems: LS-110, Milepost Number 11 1-10
- Graph linear inequalities. (Milepost 12) Problems: LS-149, Milepost Number 12 1-4

#### Unit 6 — Day 79 The Case of the Cooling Corpse: Logarithms and Other Inverses (CC)

- Multiply and divide rational expressions. (Milepost 13) Problems: CC-42, Milepost Number 13 1-8
- Solve rational equations. (Milepost 14)
  Problems: CC-76, Milepost Number 14 1-10

- Add and subtract rational expressions. (Milepost 15) Problems: CC-124, Milepost Number 15 1-10
- Simplify integral and rational exponents. (Milepost 16) Problems: CC-136, Milepost Number 16 1-21

Unit 10 — Day 92 Policy Making: Probability (PM)

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