

# Algebra

## Number and Quantity A.N

### **N-RN. The Real Number System** A1.N-RN

A. Major Cluster: Extend the properties of exponents to rational exponents. A2.N-RN.A

1 Determine the value of a quantity that is squared or cubed. EE.N-RN.1

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### **N-CN. The Complex Number System** A2.N-CN

A. Additional Cluster: Perform arithmetic operations with complex numbers. A2.N-CN.A

2.a Use the commutative, associative, and distributive properties to add, subtract, and multiply whole numbers. EE.N-CN.2.A

2.b Solve real-world problems involving addition and subtraction of decimals, using models when needed. EE.N-CN.2.B

2.c Solve real-world problems involving multiplication of decimals and whole numbers, using models when needed. EE.N-CN.2.C

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### **N-Q. Quantities** A1.N-Q

A. Supporting Cluster: Reason quantitatively and use units to solve problems. A1.N-Q.A

1 Express quantities to the appropriate precision of measurement. EE.N-Q.1-3

2 Express quantities to the appropriate precision of measurement. EE.N-Q.1-3

3 Express quantities to the appropriate precision of measurement. EE.N-Q.1-3

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## Algebra A1.A

### **A-SSE. Seeing Structure in Expressions** A1.A-SSE

A. Major Cluster: Interpret the structure of expressions. A1.A-SSE.A

1 Identify an algebraic expression involving one arithmetic operation to represent a real-world problem. EE.A-SSE.1

B. Supporting Cluster: Write expressions and equations in equivalent forms to solve problems. A1.A-SSE.B

3 Solve simple algebraic equations with one variable using multiplication and division. EE.A-SSE.3

4 Determine the successive term in a geometric sequence given the common ratio. EE.A-SSE.4

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**A-CED. Creating Equations** A1.A-CED

- A. Major Cluster: Create equations that describe numbers or relationships. A1.A-CED.A
- 1 Create an equation involving one operation with one variable and use it to solve a real-world problem. EE.A-CED.1
  - 2 Solve one-step inequalities. EE.A-CED.2-4
  - 3 Solve one-step inequalities. EE.A-CED.2-4
  - 4 Solve one-step inequalities. EE.A-CED.2-4
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**A-REI. Reasoning with Equations and Inequalities** A1.A-REI

- D. Major Cluster: Represent and solve equations and inequalities graphically. A1.A-REI.D
- 10 Interpret the meaning of a point on the graph of a line. EE.A-REI.10-12
  - 11 Interpret the meaning of a point on the graph of a line. EE.A-REI.10-12
  - 12 Interpret the meaning of a point on the graph of a line. EE.A-REI.10-12
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**Functions** A1.F**F-IF. Interpreting Functions** A1.F-IF

- A. Major Cluster: Understand the concept of a function and use function notation. A1.F-IF.A
- 1 Use the concept of function to solve problems. EE.F-IF.1-3
  - 2 Use the concept of function to solve problems. EE.F-IF.1-3
  - 3 Use the concept of function to solve problems. EE.F-IF.1-3
- B. Major Cluster: Interpret functions that arise in applications in terms of the context. A1.F-IF.B
- 4 Construct graphs that represent linear functions with different rates of change and interpret which is faster/slower, higher/lower, etc. EE.F-IF.4-6
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**F-BF. Building Functions** A1.F-BF

- A. Supporting Cluster: Build a function that models a relationship between two quantities. A1.F-BF.A
- 1 Select the appropriate graphical representation (first quadrant) given a situation involving constant rate of change. EE.F-BF.1
  - 2 Determine an arithmetic sequence with whole numbers when provided a recursive rule. EE.F-BF.2

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**F-LE. Linear, Quadratic, and Exponential Models** A1.F-LE

- A. Supporting Cluster: Construct and compare linear, quadratic, and exponential models and solve problems. A1.F-LE.A
- 1 Model a simple linear function such as  $y = mx$  to show that these functions increase by equal amounts over equal intervals. EE.F-LE.1-3
  - 2 Model a simple linear function such as  $y = mx$  to show that these functions increase by equal amounts over equal intervals. EE.F-LE.1-3
  - 3 Model a simple linear function such as  $y = mx$  to show that these functions increase by equal amounts over equal intervals. EE.F-LE.1-3
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**Statistics and Probability** A1.S**S-ID. Interpreting Categorical and Quantitative Data** A1.S-ID

- A. Additional Cluster: Summarize, represent, and interpret data on a single count or measurement variable. A1.S-ID.A
- 1 Given data, construct a simple graph (line, pie, bar, or picture) or table, and interpret the data. EE.S-ID.1-2
  - 2 Given data, construct a simple graph (line, pie, bar, or picture) or table, and interpret the data. EE.S-ID.1-2
  - 3 Interpret general trends on a graph or chart. EE.S-ID.3
  - 4 Calculate the mean of a given data set (limit the number of data points to fewer than five). EE.S-ID.4
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**S-IC. Making Inferences and Justifying Conclusions** A2.S-IC

- A. Supporting Cluster: Understand and evaluate random processes underlying statistical experiments. A2.S-IC.A
- 1 Determine the likelihood of an event occurring when the outcomes are equally likely to occur. EE.S-IC.1-2
  - 2 Determine the likelihood of an event occurring when the outcomes are equally likely to occur. EE.S-IC.1-2