BIG IDEAS AND TASKS AT A GLANCE

Big Idea No.	Big Idea	Task	Description
1	Addition and Subtraction of Fractions	1A	Students add mixed numbers on a number line to justify their sums.
1	Addition and Subtraction of Fractions	1B	Students find different fractions with the same sum.
1	Addition and Subtraction of Fractions	1C	Students consider subtraction misconceptions.
1	Addition and Subtraction of Fractions	1D	Students add and subtract fractions to solve a problem.
2	Multiplication and Division of Fractions	2A	Students decompose mixed numbers to multiply.
2	Multiplication and Division of Fractions	2B	Students consider misconceptions about multiplication of fractions.
2	Multiplication and Division of Fractions	2C	Students solve problems with multiplication and division of fractions.
2	Multiplication and Division of Fractions	2D	Students consider the results of dividing with fractions.
3	Reasoning About Addition and Subtraction of Fractions	3A	Students reason about the difference of fractions.
3	Reasoning About Addition and Subtraction of Fractions	3B	Students compare the sums of fractions.
3	Reasoning About Addition and Subtraction of Fractions	3C	Students compare sums of fractions to a benchmark.
3	Reasoning About Addition and Subtraction of Fractions	3D	Students reason about subtraction with mixed numbers.

Big Idea No.	Big Idea	Task	Description
4	Reasoning About Multiplication and Division of Fractions	4A	Students interpret quotients of fractions.
4	Reasoning About Multiplication and Division of Fractions	4B	Students reason about products of fractions.
4	Reasoning About Multiplication and Division of Fractions	4C	Students observe patterns of multiplication with fractions.
4	Reasoning About Multiplication and Division of Fractions	4D	Students reason about quotients of fractions.
5	Problem Solving With Fractions	5A	Students solve problems with fractions in a table.
5	Problem Solving With Fractions	5B	Students solve a multi-step problem.
5	Problem Solving With Fractions	5C	Students solve an open-ended problem.
5	Problem Solving With Fractions	5D	Students represent and write a problem for division with fractions.
6	Decimals as Numbers	6A	Students consider decimals on a number line.
6	Decimals as Numbers	6B	Students represent decimals on a number line.
6	Decimals as Numbers	6C	Students relate decimals through a decimal chart.
6	Decimals as Numbers	6D	Students decompose decimals.
7	Addition and Subtraction With Decimals	7A	Students reason about the sums of decimals.
7	Addition and Subtraction With Decimals	7B	Students add and subtract decimals on a number line.
7	Addition and Subtraction With Decimals	7C	Students reason about adding and subtracting with decimals.
7	Addition and Subtraction With Decimals	7D	Students reason about subtraction with decimals to place a decimal point.
8	Multiplication and Division With Decimals	8A	Students reason about quotients of decimals.
8	Multiplication and Division With Decimals	8B	Students interpret quotients of decimals.
8	Multiplication and Division With Decimals	8C	Students represent multiplication of decimals with an area model.

Big Idea No.	Big Idea	Task	Description
8	Multiplication and Division With Decimals	8D	Students compare products of decimals by reasoning.
9	Representing Integers	9A	Students decompose integers.
9	Representing Integers	9B	Students represent an integer in four different ways.
9	Representing Integers	9C	Students consider integer relationships on an integer chart.
9	Representing Integers	9D	Students identify real-world examples of integers.
10	Representing Integers on Number Lines	10A	Students reason about where to place numbers on an open number line.
10	Representing Integers on Number Lines	10B	Students consider relationships between integers on number lines.
10	Representing Integers on Number Lines	10C	Students consider the changing position of an integer on different number lines.
10	Representing Integers on Number Lines	10D	Students represent the same integer on different number lines.
11	More Representing Integers on Number Lines	11A	Students reason about how an integer relates to other integers on two different number lines.
11	More Representing Integers on Number Lines	11B	Students consider midpoints of number lines with different integers.
11	More Representing Integers on Number Lines	11C	Students consider integers on number lines with different intervals.
11	More Representing Integers on Number Lines	11D	Students consider how endpoints change the value of a point between them.
12	Comparing Integers	12A	Students react to misconceptions about integer comparison.
12	Comparing Integers	12B	Students use number lines to compare integers.
12	Comparing Integers	12C	Students create integers to compare to a given benchmark.
12	Comparing Integers	12D	Students order a collection of integers.
13	Addition With Integers	13A	Students reason about addition with integers.
13	Addition With Integers	13B	Students add integers on a number line.
13	Addition With Integers	13C	Students decompose integers to add more efficiently.
13	Addition With Integers	13D	Students add integers with an integer chart.

Big Idea No.	Big Idea	Task	Description
14	Subtraction With Integers	14A	Students create pairs of integers for a given difference.
14	Subtraction With Integers	14B	Students represent subtraction with integers.
14	Subtraction With Integers	14C	Students find a specific difference of different integers.
14	Subtraction With Integers	14D	Students estimate differences of integers.
15	Multiplication With Integers	15A	Students compare products of integers.
15	Multiplication With Integers	15B	Students examine patterns within multiplication equations.
15	Multiplication With Integers	15C	Students examine patterns with multiplication of integers on a number line.
15	Multiplication With Integers	15D	Students reason about the relationship between integer factors.
16	Division With Integers	16A	Students examine patterns with division of integers on a number line.
16	Division With Integers	16B	Students represent division of integers in different ways.
16	Division With Integers	16C	Students use relationships between division expressions to find quotients.
16	Division With Integers	16D	Students examine patterns within division equations.
17	Representing Ratios	17A	Students consider different representations of ratios.
17	Representing Ratios	17B	Students represent ratio in different ways.
17	Representing Ratios	17C	Students consider different ratios for the same collections.
17	Representing Ratios	17D	Students work with real-world contexts for ratios.
18	Equivalent Ratios	18A	Students justify why ratios are equivalent.
18	Equivalent Ratios	18B	Students find equivalent ratios of different representations.
18	Equivalent Ratios	18C	Students create and justify equivalent ratios.
18	Equivalent Ratios	18D	Students solve real-world problems with equivalent ratios.
19	Unit Rates	19A	Students apply unit rates to a real-world problem.
19	Unit Rates	19B	Students identify unit rates.

Big Idea No.	Big Idea	Task	Description
19	Unit Rates	19C	Students describe when we use unit rates.
19	Unit Rates	19D	Students consider different interpretations of unit rates.
20	Using Ratios to Solve Problems	20A	Students use ratio to solve problems.
20	Using Ratios to Solve Problems	20B	Students use ratio to compare situations.
20	Using Ratios to Solve Problems	20C	Students reason about ratio to compare situations.
20	Using Ratios to Solve Problems	20D	Students use ratio to solve a real-world problem.
21	Reasoning With Percents	21A	Students compare percents of quantities.
21	Reasoning With Percents	21B	Students compare quantities to a benchmark percent.
21	Reasoning With Percents	21C	Students reason about percents and quantity.
21	Reasoning With Percents	21D	Students use percent to solve real-world problems.
22	Unit Rate as Slope	22A	Students use unit rate as slope to solve a real-world problem.
22	Unit Rate as Slope	22B	Students use unit rates and constants to solve a problem.
22	Unit Rate as Slope	22C	Students use a unit rate to solve a problem.
22	Unit Rate as Slope	22D	Students interpret graphs of unit rates.
23	Writing Expressions	23A	Students consider expressions for the same situation.
23	Writing Expressions	23B	Students create expressions for perimeter and area.
23	Writing Expressions	23C	Students write an expression to solve a real-world problem.
23	Writing Expressions	23D	Students create situations for given expressions.
24	Evaluating Expressions	24A	Students reason about evaluations of expressions.
24	Evaluating Expressions	24B	Students create and evaluate expressions.
24	Evaluating Expressions	24C	Students evaluate an expression and generate new expressions with the same value.
24	Evaluating Expressions	24D	Students consider different values for the same expression.

Big Idea No.	Big Idea	Task	Description
25	Equivalent Expressions	25A	Students identify equivalent expressions.
25	Equivalent Expressions	25B	Students create two expressions equivalent to a third expression.
25	Equivalent Expressions	25C	Students use expressions to solve problems.
25	Equivalent Expressions	25D	Students consider misconceptions about expressions.
26	Writing Equations	26A	Students write an equation to model a problem.
26	Writing Equations	26B	Students write an equation to model a problem.
26	Writing Equations	26C	Students create a scenario for an equation.
26	Writing Equations	26D	Students create different expressions to model a problem.
27	Solving Equations	27A	Students consider errors when solving equations.
27	Solving Equations	27B	Students create and solve an equation for a problem.
27	Solving Equations	27C	Students identify equations with the same solution.
27	Solving Equations	27D	Students consider if two equations have the same solution.
28	Inequalities	28A	Students use inequalities with a real-world problem.
28	Inequalities	28B	Students use inequalities with a real-world problem.
28	Inequalities	28C	Students use an inequality to solve a problem.
28	Inequalities	28D	Students compare solutions for inequalities.
29	Function Tables	29A	Students describe and use a function table.
29	Function Tables	29B	Students identify functional relationships.
29	Function Tables	29C	Students find values for different functions.
29	Function Tables	29D	Students consider functions in real-world contexts.
30	Reasoning About Graphing	30A	Students reason about graphs.
30	Reasoning About Graphing	30B	Students create a scenario for a graph.
30	Reasoning About Graphing	30C	Students model a problem with a graph.
30	Reasoning About Graphing	30D	Students compare the graphs of two functions.

Big Idea No.	Big Idea	Task	Description
31	Comparing Functions	31A	Students compare different functions represented in different ways.
31	Comparing Functions	31B	Students compare functions to solve a problem.
31	Comparing Functions	31C	Students compare functions and consider the rate of change.
31	Comparing Functions	31D	Students compare functions and consider the rate of change.
32	Systems of Equations	32A	Students use systems of equations to create a new equation.
32	Systems of Equations	32B	Students solve a real-world problem.
32	Systems of Equations	32C	Students solve a real-world problem.
32	Systems of Equations	32D	Students solve a system of equations and create a new equation.
33	Area of Composite Figures	33A	Students find the area of a shape on a coordinate grid.
33	Area of Composite Figures	33B	Students reason about the area of a figure.
33	Area of Composite Figures	33C	Students create and find the area of a composite figure.
33	Area of Composite Figures	33D	Students find the area of a composite figure with circles.
34	Nets and Three-Dimensional Figures	34A	Students consider nets of rectangular prisms.
34	Nets and Three-Dimensional Figures	34B	Students compare and contrast two nets.
34	Nets and Three-Dimensional Figures	34C	Students consider an unconventional net.
34	Nets and Three-Dimensional Figures	34D	Students create two different nets for a situation.
35	Surface Area and Volume	35A	Students create prisms with the same volume.
35	Surface Area and Volume	35B	Students use surface area to solve a problem.
35	Surface Area and Volume	35C	Students find the dimensions of a triangular prism.
35	Surface Area and Volume	35D	Students solve a real-world problem with surface area.
36	Volume of Cylinders and Cones	36A	Students consider how dimensions change volume of cylinders.

Big Idea No.	Big Idea	Task	Description
36	Volume of Cylinders and Cones	36B	Students find the dimensions of a cone.
36	Volume of Cylinders and Cones	36C	Students compare cones and cylinders in a real-world context.
36	Volume of Cylinders and Cones	36D	Students compare volume of cylinders and cones.
37	Angle Relationships	37A	Students find angle measures.
37	Angle Relationships	37B	Students determine possible angle measures for a triangle.
37	Angle Relationships	37C	Students find exterior angles of triangles.
37	Angle Relationships	37D	Students find angle measures of a figure with three parallel lines.
38	Transformations, Similarity, and Congruence	38A	Students transform a figure on a coordinate plane.
38	Transformations, Similarity, and Congruence	38B	Students describe a transformation on a coordinate plane.
38	Transformations, Similarity, and Congruence	38C	Students transform a figure and describe the difference between the original and new image of the figure.
38	Transformations, Similarity, and Congruence	38D	Students consider the results of a transformation.
39	Distance and the Pythagorean Theorem	39A	Students find the lengths of segments of a figure.
39	Distance and the Pythagorean Theorem	39B	Students consider if triangles are right triangles.
39	Distance and the Pythagorean Theorem	39C	Students create right triangles from a given right triangle.
39	Distance and the Pythagorean Theorem	39D	Students apply the Pythagorean Theorem to a real-world context.
40	Univariate Categorical Data	40A	Students consider variations of categorical data.
40	Univariate Categorical Data	40B	Students identify examples of categorical data.
40	Univariate Categorical Data	40C	Students create a display for categorical data.
40	Univariate Categorical Data	40D	Students convert a bar graph to a pie graph.
41	Univariate Quantitative Data	41A	Students create data for a mean.

Big Idea No.	Big Idea	Task	Description
41	Univariate Quantitative Data	41B	Students interpret a dot plot.
41	Univariate Quantitative Data	41C	Students interpret a box plot.
41	Univariate Quantitative Data	41D	Students create a display for a unique mean and median.
42	Displays of Univariate Quantitative Data	42A	Students sketch a box plot related to given data.
42	Displays of Univariate Quantitative Data	42B	Students interpret a dot plot.
42	Displays of Univariate Quantitative Data	42C	Students create a dot plot and a box plot for given data.
42	Displays of Univariate Quantitative Data	42D	Students draw conclusions from two box plots.
43	Deviations From the Mean	43A	Students consider deviation from the mean with dot plots.
43	Deviations From the Mean	43B	Students find absolute deviation.
43	Deviations From the Mean	43C	Students create a dot plot for known mean and deviation.
43	Deviations From the Mean	43D	Students interpret data to create a new dot plot.
44	Bivariate Categorical Data	44A	Students consider and interpret bivariate data.
44	Bivariate Categorical Data	44B	Students consider and interpret bivariate data.
44	Bivariate Categorical Data	44C	Students consider and interpret bivariate data.
44	Bivariate Categorical Data	44D	Students draw conclusions based on bivariate data.
45	Bivariate Quantitative Data	45A	Students create a scatter plot and the situation it describes.
45	Bivariate Quantitative Data	45B	Students use a scatter plot to describe association.
45	Bivariate Quantitative Data	45C	Students draw conclusions using a scatter plot.
45	Bivariate Quantitative Data	45D	Students compare different scatter plots to consider strong correlation.