



## Answer Key

HSA Item Number	Answer	Indicators Assessed
1	D	1.2.5 The student will apply formulas and/or use matrices (arrays of numbers) to solve real-world problems.
2	G	1.1.4 The student will describe the graph of a non-linear function and discuss its appearance in terms of the basic concepts of maxima and minima, zeros (roots), rate of change, domain and range, and continuity.
3	B	1.2.4 The student will describe how the graphical model of a non-linear function represents a given problem and will estimate the solution.
4	F	1.2.2 The student will solve linear inequalities and describe the solutions using numbers, symbols, and/or graphs.
5	D	3.1.2 The student will use the measures of central tendency and/or variability to make informed conclusions.
6	BCR	3.1.1 The student will design and/or conduct an investigation that uses statistical methods to analyze data and communicate results.
7	B	1.2.2 The student will solve linear inequalities and describe the solutions using numbers, symbols, and/or graphs.
8	J	1.1.3 The student will apply addition, subtraction, multiplication, and/or division of algebraic expressions to mathematical and real-world problems.
9	A	1.2.3 The student will solve and describe using numbers, symbols, and/or graphs if and where two straight lines intersect.
10	F	3.1.3 The student will calculate theoretical probability or use simulations or statistical inferences from data to estimate the probability of an event.
11	C	1.1.2 The student will represent patterns and/or functional relationships in a table, as a graph, and/or by mathematical expression.
12	ECR	1.1.1 The student will recognize, describe, and/or extend patterns and functional relationships that are expressed numerically, algebraically, and/or geometrically. 1.1.2 The student will represent patterns and/or functional relationships in a table, as a graph, and/or by mathematical expression.
13	15.5	1.2.5 The student will apply formulas and/or use matrices (arrays of numbers) to solve real-world problems.  1.2.1 The student will determine the equation for a line, solve

14	46	linear equations, and/or describe the solutions using numbers, symbols, and/or graphs.
15	800	<b>1.2.3</b> The student will solve and describe using numbers, symbols, and/or graphs if and where two straight lines intersect.
16	0.56	<b>3.1.3</b> The student will calculate theoretical probability or use simulations or statistical inferences from data to estimate the probability of an event.
17	BCR	<b>3.1.2</b> The student will use the measures of central tendency and/or variability to make informed conclusions.
18	F	<b>1.2.5</b> The student will apply formulas and/or use matrices (arrays of numbers) to solve real-world problems.
19	D	<b>1.1.3</b> The student will apply addition, subtraction, multiplication, and/or division of algebraic expressions to mathematical and real-world problems.
20	H	<b>3.2.1</b> The student will make informed decisions and predictions based upon the results of simulations and data from research.
21	ECR	<b>3.2.1</b> The student will make informed decisions and predictions based upon the results of simulations and data from research. <b>3.2.3</b> The student will communicate the use and misuse of statistics.
22	G	<b>3.1.2</b> The student will use the measures of central tendency and/or variability to make informed conclusions.
23	D	<b>3.1.1</b> The student will design and/or conduct an investigation that uses statistical methods to analyze data and communicate results.
24	G	<b>3.2.2</b> The student will interpret data and/or make predictions by finding and using a line of best fit and by using a given curve of best fit.
25	D	<b>1.1.1</b> The student will recognize, describe, and/or extend patterns and functional relationships that are expressed numerically, algebraically, and/or geometrically.
26	J	<b>1.1.2</b> The student will represent patterns and/or functional relationships in a table, as a graph, and/or by mathematical expression.
27	B	<b>1.2.4</b> The student will describe how the graphical model of a non-linear function represents a given problem and will estimate the solution.
28	F	<b>1.2.1</b> The student will determine the equation for a line, solve linear equations, and/or describe the solutions using numbers, symbols, and/or graphs.
29	C	<b>3.2.1</b> The student will make informed decisions and predictions based upon the results of simulations and data from research.
30	BCR	<b>3.2.2</b> The student will interpret data and/or make predictions by finding and using a line of best fit and by using a given curve of best fit.

31	A	<b>1.2.1</b> The student will determine the equation for a line, solve linear equations, and/or describe the solutions using numbers, symbols, and/or graphs.
32	G	<b>1.1.1</b> The student will recognize, describe, and/or extend patterns and functional relationships that are expressed numerically, algebraically, and/or geometrically.
33	D	<b>1.1.4</b> The student will describe the graph of a non-linear function and discuss its appearance in terms of the basic concepts of maxima and minima, zeros (roots), rate of change, domain and range, and continuity.
34	J	<b>3.2.3</b> The student will communicate the use and misuse of statistics.
35	C	<b>1.2.3</b> The student will solve and describe using numbers, symbols, and/or graphs if and where two straight lines intersect.
36	ECR	<b>1.2.1</b> The student will determine the equation for a line, solve linear equations, and/or describe the solutions using numbers, symbols, and/or graphs. <b>1.2.3</b> The student will solve and describe using numbers, symbols, and/or graphs if and where two straight lines intersect.
37	22	<b>1.1.1</b> The student will recognize, describe, and/or extend patterns and functional relationships that are expressed numerically, algebraically, and/or geometrically.
38	.25	<b>3.1.3</b> The student will calculate theoretical probability or use simulations or statistical inferences from data to estimate the probability of an event.

Student responses to Constructed Response items can be found in the scoring section of the mdk12.org site.

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