SBAC Block Mirror: Math High School - Algebra and Functions II – Quadratic Functions, Equations, and Inequalities (AE134329)

Item Number	Item ID	Item Type	Standard Abbreviation	Standard Text	Cluster	Claim	Target(s)	Correct Answer	DOK
1	E176186	Multiple Choice	MA.9-12.A-REI.D.12	Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.	MA.9-12.A-REI.D	1	J	C	1
2	E263280	Technology Enhanced - Graph Plotting	MA.9-12.F-IF.C.7.a	Graph linear and quadratic functions and show intercepts, maxima, and minima.	MA.9-12.F-IF.C	1	M	autoscore	2
3	E263293	Technology Enhanced - Math Formula	MA.9-12.A-REI.A.2	Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.	MA.9-12.A-REI.A	1	H	autoscore	2
4	E263291	Multiple Choice	MA.9-12.A-REI.D.10	Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).	MA.9-12.A-REI.D	1	J	D	2
5	E263544	Technology Enhanced - Math Formula	MA.9-12.F-IF.B.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.	MA.9-12.F-IF.B	4	C, F	autoscore	2
6	E263292	Multiple Choice	MA.9-12.A-REI.B.4.b	Solve quadratic equations by inspection (e.g., for $x^2 = 49$), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm bi$ for real numbers a and b.	MA.9-12.A-REI.B	1	I	B	2
7	E214563	Technology Enhanced - Classification	MA.9-12.F-IF.C.9	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	MA.9-12.F-IF.C	3	A, F	autoscore	2
8	E215310	Technology Enhanced - Math Formula	MA.9-12.A-CED.A.2		MA.9-12.A-CED.A	4	E, B	autoscore	2
9	E263294	Multiple Choice	MA.9-12.A-REI.A.2	Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.	MA.9-12.A-REI.A	1	H	D	2
10	E263278	Technology Enhanced - Math Formula	MA.9-12.F-IF.B.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.	MA.9-12.F-IF.B	1	L	autoscore	2
11	E257119	Technology Enhanced - Graph Plotting	MA.9-12.A-CED.A.2	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.	MA.9-12.A-CED.A	1	G	autoscore	2
12	E263286	Technology Enhanced - Math Formula	MA.9-12.F-BF.A.1.a	Determine an explicit expression, a recursive process, or steps for calculation from a context.	MA.9-12.F-BF.A	1	N	autoscore	2
13	E263295	Technology Enhanced - Cloze Association	MA.9-12.A-REI.A.2	Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.	MA.9-12.A-REI.A	1	H	autoscore	2
14	E263288	Multiple Correct Answer	MA.9-12.A-REI.D.11	Explain why the x-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.	MA.9-12.A-REI.D	1	J	B, E	2
15	E263285	Technology Enhanced - Math Formula	MA.9-12.F-IF.C.8.a	Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.	MA.9-12.F-IF.C	1	M	autoscore	2

Totals (SBAC bp)		
	Claim 1	12
	Target G	*1*
	Target H	*3*
	Target I	*1*
	Target J	*3*
	Target L	*1*
	Target M	*2*
	Target N	*1*

Claim 2	0
Claim 3	1
Claim 4	2

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