ADDITIONAL SAMPLE ITEM KEYS

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
1	MGSE9-12S.ID.6a	1	C	The correct answer is choice (C) {(0, 50), (1, 42), (2, 33), (3, 25), (4, 16)}. This set of data points is the only one from the list that could be modeled by a decreasing linear function, which has a negative value for a in the linear function formula: $f(x) = ax + b$. Choices (A), (B), and (D) are incorrect because the data points do not correspond to a function with a negative value for a in the linear function formula.
2	MGSE9-12A.APR.1	2	C	The correct answer is choice (C) $x^2 - 2x - 3$. This indicates a correct calculation of $P(x) - Q(x) = x^2 - x - 6 - (x - 3) = x^2 - x - 6 - x + 3 = x^2 - 2x - 3$. Choice (A) is incorrect due to a sign error on the term x. Choice (B) is incorrect due to adding $P(x)$ and $Q(x)$. Choice (D) is incorrect due to a sign error on the number 3.
3	MGSE9-12A.SSE.1a	2	A	The correct answer is choice (A) The amount of money Sheila must pay her employees per day. Choice (B) is incorrect because the number of pies Sheila must sell per day is represented by x. Choice (C) is incorrect because the total cost of expenses per pie is represented by the value of the entire expression. Choice (D) is incorrect because the amount of money customers pay per pie is not represented in the expression.
4	MGSE9-12F.BF.1	2	D	The correct answer is choice (D) $f(x) = \frac{x}{2} + 1$. When the x-values in the table are substituted for x in this function, the result is equal to the corresponding y-value. Choice (A) is incorrect because the function indicates multiplication of 2 and x instead of division of x by 2. Choice (B) is incorrect because the function indicates subtraction of 1 instead of addition of 1. Choice (C) is incorrect because the function indicates multiplication of 2 and x instead of division of x by 2 and indicates subtraction of 1 instead of addition of 1.

Item	Standard/ Element	DOK Level	Correct Answer	Explanation
5	MGSE9-12A.REI.6	2	D	The correct answer is choice (D) (16, 5). When the values of the coordinate pair are substituted into the system of equations, both sides are equal for both equations. As such, the coordinate pair represents a solution to the system of equations. Choices (B) and (C) are incorrect because the values of the coordinate pair, when substituted into the system of equations, result in an incorrect solution for the second equation. Choice (A) is incorrect because the values of the coordinate pair, when substituted into the system of equations, result in an incorrect solution for the first equation.
6	MGSE9-12A.CED.1	3	C	The correct answer is choice (C) 33. At $6 per person, and with a $100 flat service charge added, Acme Catering Company can provide services for 33 people at a cost of $298. Choice (A) is incorrect because it is the number from the Creative Catering Company, but not the largest number possible. Choice (B) is incorrect because it is the number from the Best Foods Company, but not the largest number possible. Choice (D) is incorrect because the student selects the highest number without basing the response on the context provided.
7	MGSE9-12S.ID.6a	2	C	The correct answer is choice (C). The data in the graph represents a quadratic trend. The graphs in (A) and (D) represent a correlation to linear trends. The graph in (B) represents data with no clear correlation.
8	MGSE9-12S.ID.1	2	B	The correct answer is choice (B) 2. Only 2 students sent 6–10 text messages. Choices (A), (C), and (D) are incorrect because the student either made a counting mistake or looked at the numbers for 11–15 or 16–20 text messages instead of those for 6–10.
9	MGSE9-12A.REI.3	3	N/A	See scoring rubric and exemplar responses on page 28.
10	MGSE9-12F.LE.5	3	N/A	See scoring rubric and exemplar responses beginning on page 29.

EXAMPLE SCORING RUBRICS AND EXEMPLAR RESPONSES

Item 9

Scoring Rubric

Points	Description
2	The response achieves the following: • student gets Part A AND Part B correct
1	The response achieves the following: • student gets Part A OR Part B correct
0	The response achieves the following: • student gets neither Part A nor Part B correct

Exemplar Response

Points Awarded	Response
2	Part A: Jill did not invert the inequality sign in step 4 when dividing by a negative number. AND Part B: $-3x < 4x + 8$ $-7x < 8$ $x > \frac{8}{-7}$
1	Part A: Jill did not invert the inequality sign in step 4 when dividing by a negative number. OR Part B: $-3x < 4x = 8$ $-7x < 8$ $x > \frac{8}{-7}$
0	*Student does not produce a correct response or a correct process.*

Item 10

Scoring Rubric

Points	Description
4	The response achieves the following: Student demonstrates a complete and thorough understanding of interpreting the parameters in a linear function in terms of a context. Award 4 points for a student response that contains all of the following elements: • Part A: $2,000 • Part B: 0.5% per month • Part C: 22 months • Part D: $2,231.94. Since it will take 22 months for the student council to save enough money, the first function can be solved for $v(22)$, which equals 2,231.94.
3	The response achieves the following: Student demonstrates nearly complete understanding of interpreting the parameters in a linear function in terms of a context. Award 3 points for a student response that contains any 3 of the following elements: • Part A: $2,000 • Part B: 0.5% per month • Part C: 22 months • Part D: $2,231.94. Since it will take 22 months for the student council to save enough money, the first function can be solved for $v(22)$, which equals 2,231.94. **Scoring Note:** If an error is made in one of these response elements, future response elements based on that should count as correct based upon the previous error. For example, if the student indicates 8 months as the response to Part C and computes a response to Part D that is correct for $v(8)$, then the Part D element should be scored as correct.

Points	Description
2	The response achieves the following: Student demonstrates partial understanding of interpreting the parameters in a linear function in terms of a context. Award 2 points for a student response that contains any 2 of the following elements: • Part A: $2,000 • Part B: 5% per month (see "Note for Educators" below) • Part B: 0.5% (with or without "rate" duration included) • Part C: 22 months • Part D: $2,231.94 **Scoring Note**: If an error is made in one of these response elements, future response elements based on that should count as correct based upon the previous error. For example, if the student indicates 8 months as the response to Part C and computes a response to Part D that is correct for $v(8)$, then the Part D element should be scored as correct. **Note for Educators:** Higher score levels reflect higher levels of precision and accuracy within the response. At lower score levels, incorrect responses which indicate partial understanding of the concepts under assessment may be awarded points. In this example, the two possible responses for Part B represent cases where the student is demonstrating a partial understanding of how to interpret the number 1.005 within this context, so students who commit these errors will receive partial credit in their responses at the 1- and 2-point levels.
1	The response achieves the following: Student demonstrates minimal understanding of interpreting the parameters in a linear function in terms of a context. Award 1 point for a student response that contains any 1 of the following elements: • Part A: $2,000 • Part B: 5% per month (See "Note for Educators" below) • Part B: 0.5% (with or without "rate" duration included) • Part B: 1.005% per month • Part C: 22 months • Part D: $2,231.94 **Scoring Note:** If an error is made in one of these response elements, future response elements based on that should count as correct based upon the previous error. For example, if the student indicates 8 months as the response to Part C and computes a response to Part D that is correct for $v(8)$, then the Part D element should be scored as correct. **Note for Educators:** Higher score levels reflect higher levels of precision and accuracy within the response. At lower score levels, incorrect responses which indicate partial understanding of the concepts under assessment may be awarded points. In this example, the two possible responses for Part B represent cases where the student is demonstrating a partial understanding of how to interpret the number 1.005 within this context, so students who commit these errors will receive partial credit in their responses at the 1- and 2-point levels.

Points	Description
0	The response achieves the following: The student demonstrates limited to no understanding of interpreting the parameters in a linear function in terms of a context.

Exemplar Response

Points Awarded	Response
4	Part A: $2,000 Part B: 0.5% per month Part C: 22 months Part D: $2,231.94
3	Part A: $2,000 Part B: 5% per month Part C: 22 months Part D: $2,231.94
2	Part A: $2,000 Part B: 5% per month Part C: 22 months Part D: $2,000
1	Part A: $2,000 Part B: 5% Part C: 20 months Part D: $4,000
0	Part A: $250 Part B: 1.005% Part C: 5 Part D: $2,000