Cognitive Complexity Levels for the MCAS Assessments[1,2]

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Introduction and Overview

To comply with the federal No Child Left Behind (NCLB) law, states must provide evidence that they are following the numerous requirements of the law. One section of the law requires the alignment of academic content standards, academic achievement standards, and the assessments themselves. Accordingly, states must include many details about the items that are incorporated into the assessment such as the cognitive complexity or demands required from the items on the assessment.

This brief report will provide some background information regarding various models for evaluating cognitive complexity that have been devised and will recommend a model that is appropriate to use on items found in the Massachusetts Comprehensive Assessment System (MCAS). Two appendices (A and B) provide sample items from mathematics (grades 4, 6, 8, and 10) and English language arts (ELA) (grades 4, 7, and 10) that were coded using the NAEP system. We coded two items per difficulty level (Low, Moderate, High) in mathematics and one per aspect (Forming General Understanding, Developing Interpretation, Making Reader/Text Connections, Examining Content and Structure) in ELA.

Models for Cognitive Complexity

Several models have been proposed over the years that deal with the cognitive complexity of items. Among these are Bloom's Taxonomy (Bloom, 1956), a Modified Bloom's Taxonomy (Anderson & Krathwohl, 2001), Webb's Depth of Knowledge

(Webb, 1997, 1999), and the National Assessment of Educational Progress (National Assessment Governing Board, 2005a, 2005b). In addition, other systems are used by the National Council of Teachers of Mathematics (NCTM, 2005) and the National Council of Teachers of English (NCTE, 2005). We will summarize these systems before recommending the best model for the Massachusetts Comprehensive Assessment System.

Bloom's Original Taxonomy

Benjamin Bloom and his colleagues created a learning taxonomy in 1956 to describe the ways in which children learn (Bloom, 1956). This system has had a great influence on test specifications and curriculum in the field of education for over 40 years. (During the last ten years new models have diminished its influence.) This well-known progressive system assumes that children progress to the more advanced stages of learning after they have mastered the lower stages, and has been used by teachers to help students learn. The stages are briefly described in the following section.

Bloom's Taxonomy:

- *Knowledge* – usually rote memory of factual material
- *Comprehension* – involves translating from one level of abstraction to another (e.g., give an original example of a concept or principle)
- *Application* - the ability to use learned material in novel situations
- *Analysis* - the ability to break down material into its component parts so that its organizational structure can be understood (e.g., distinguishing fact from opinion)
- *Synthesis* - the ability to put parts together to form a new whole—usually involves producing a product
- *Evaluation* - the ability to judge the value of material (statement, novel, poem, research report) for a given purpose (similar to analysis but with a logical and defensible value judgment)

Bloom's Revised Taxonomy

To keep the importance of Bloom's work relevant to today's theories, Anderson (a former student of Bloom) and Krathwohl (2001) revised Bloom's original taxonomy by combining both the cognitive process and knowledge dimensions into a two-dimensional table where items fit within the matrix. The knowledge dimensions refer to the products of thinking (forms of knowledge) such as factual, conceptual, procedural, and metacognitive. This new expanded taxonomy has helped instructional designers and teachers to write and revise learning objectives, and has frequently been used at the district and state levels. However, since we are only concerned with the cognitive aspect of this model, we will only list cognitive processes below. The names have been changed from noun to verb form to emphasize that thinking is an active process (Pole, 2005).

Bloom's Revised Taxonomy:

- *Remembering* — Retrieving relevant knowledge from long-term memory
- *Understanding* — Determining the meaning of instructional messages, including oral, written, and graphic communication
- *Applying* — Carrying out or using a procedure in a given situation
- *Analyzing* — Breaking material into its constituent parts and detecting how the parts relate to one another and to an overall structure on purpose
- *Evaluating* — Making judgments based on criteria and standards
- *Creating* — Putting elements together to form a novel, coherent whole or make an original product

The table on the next page compares side-by-side the original Bloom's Taxonomy with the Revised Bloom Taxonomy. Note that there are still six levels and though slightly different words are used for the levels, the concepts are basically the same. Also, the order of synthesis (creating) and evaluation (evaluating) has changed to reflect the current belief that creative thinking is a more complex form of thinking than critical thinking. Pole (2005) provides the summary that appears in the table.

BLOOM'S TAXONOMY	BLOOM'S REVISED TAXONOMY
KNOWLEDGE The recall of specific and appropriate material	**REMEMBERING** Retrieving relevant knowledge from long-term memory (e.g., recognizing, recalling)
COMPREHENSION Process of knowledge so that it can be reproduced without having to do it verbatim. Might involve translating material from one level of abstraction to another	**UNDERSTANDING** Determining the meaning of instructional messages, including oral, written, and graphic communication (e.g., interpreting, exemplifying, classifying, summarizing, inferring, comparing, explaining)
APPLICATION Ability to use learned material in new and concrete situations	**APPLYING** Carrying out or using a procedure in a given situation (e.g., executing, implementing)
ANALYSIS Ability to break down material into its component parts so that its organization structure may be understood	**ANALYZING** Breaking material into its constituent parts and detecting how the parts relate to one another and to an overall structure or purpose (e.g., differentiating, organizing, attributing)
SYNTHESIS Ability to put parts together to form a new whole (This usually involves producing a product.)	**EVALUATING** Making judgments based on criteria and standards (e.g., checking, critiquing)
EVALUATION Ability to judge the value of material for a given purpose, and the judgments are based on definitive criteria	**CREATING** Putting elements together to form a novel, coherent whole or make an original product (e.g., generating, planning, producing)

Webb's Depth of Knowledge

Norm Webb (1997, 1999) created a series of "Depth of Knowledge" (DOK) levels as part of his work on the alignment of assessments with standards. The DOK is a subset of this larger work that has been used in alignment by over ten states (CCSSO, 2005) and to catalog tests, and is one of the most popular methods. Webb's method has been criticized for being extremely complex, and to our knowledge has never been completely implemented. However, concerning the depth of knowledge, this particular aspect of the methodology has not been criticized. Webb believed that the depth of knowledge or the cognitive demands of what students are expected to be able to do is

related to the number and strength of the connections within and between mental networks. Furthermore, the depth of knowledge required by an expectation or in an assessment is related to the number of connections of concepts and ideas a student needs to make in order to produce a response, the level of reasoning, and the use of other self-monitoring processes. Below are his levels and a brief explanation of each.

Depth of Knowledge Levels:

- *Recalling* — Recall of a fact, information, or procedure
- *Basic Application of Skill/Concept* — Use of information, conceptual knowledge, procedures, two or more steps, etc.
- *Strategic Thinking* — Requires reasoning, developing a plan or sequence of steps; has some complexity; more than one possible answer; generally takes less than 10 minutes to do
- *Extended Thinking* — Requires an investigation; time to think and process multiple conditions of the problem or task; and more than 10 minutes to do non-routine manipulations

NAEP's Cognitive Complexity Levels for Mathematics and Reading

The National Assessment of Education Progress (NAEP) offers its own method of classifying the cognitive complexity of items. NAEP has applied this scheme only to mathematics, but it could be modified and applied to other subject areas as well. A similar notion has been developed for reading that concentrates on the various "aspects" of reading that the student might encounter. This will be detailed later in this section.

The 2005 NAEP *Mathematics Framework* (NAGB, 2005a) builds on its former framework, and its main purpose is to ensure that NAEP assesses an appropriate balance

of content as well as a variety of ways of knowing and doing mathematics. The major change was to create a second dimension of the framework based on the properties of an item, rather than on the abilities of a student, as was the case for the previous frameworks. Basically, the complexity of an item is determined to be what an item asks of students (NAGB, 2005a).

Each level of complexity includes aspects of knowing and doing the subject area, such as reasoning, performing procedures, understanding concepts, or solving problems. Similar to Bloom's levels, these levels are ordered so that items at a low level demand that students perform simple procedures, understand elementary concepts, or solve simple problems, while items at the high end ask students to reason or communicate about sophisticated concepts, perform complex procedures, or solve nonroutine problems. The ordering of the levels does not simply imply a developmental sequence or the sequencing in which teaching and learning occur, but rather a description of the different demands made on students by particular test items (NAGB, 2005a). Taken from the NAEP *Mathematics Framework,* these descriptive levels are listed below:

Mathematical Complexity Levels (NAEP 2005a Framework):

- *Low* - Relies on recall/recognition of previously learned concepts and principles; specifies what a student is to do; carries out procedure performed mechanically; does not require original method or solution.
- *Moderate* - Involves more flexibility of thinking and choice; requires a response that goes beyond the habitual; ordinarily more than one step; must decide what to do; uses informal methods; brings together skill/knowledge from various domains.

- *High* - Makes heavy demands; must engage in abstract reasoning, planning, analysis, judgment, and creative thought.

The NAEP *Reading Frameworks* (NAGB, 2005b) include "aspects of reading," which deal with the way students develop an understanding of what they read in different ways. These are not hierarchical in the same sense that the previous levels were for mathematics, but are presented here because NAEP writes questions that require the selection and integration of various reading strategies rather than the application of a specific strategy or skill. These aspects are built into the questions as they are written. Inherent in these aspects are the strategies that readers use to build and examine their understanding and adjust their approach. These aspects are (1) forming a general understanding (2) developing an interpretation (3) making reader/text connections, and (4) examining content and structure. The following is brief summary.

Aspects of Reading (NAEP 2005b Framework):

- *Forming a general understanding* — To form a general understanding, the reader must consider the text as a whole and have a global knowledge of it.
- *Developing interpretation* — To develop an interpretation, the reader must extend initial impressions to arrive at a more complete understanding of what was read. This involves linking information across parts of a text as well as focusing on specific information.
- *Making reader/text connections* — To make reader/text connections, the reader must link information in the text with knowledge and experience. This might include applying ideas in the text to the real world, and responses must be text based.

- *Examining content and structure* — Examining text content and structure requires critically evaluating, comparing and contrasting, and understanding the effect of features such as irony, humor, and organization. Readers are required to stand apart from the text, consider it objectively, and evaluate its quality and appropriateness, using text content and structure.

As noted earlier, the strategies and skills required to master these aspects overlap to some extent, but successfully mastering one aspect may not depend on successfully mastering any other aspect, and the aspects are not mutually exclusive. The aspects do not indicate increasing cognitive complexity levels as those utilized in mathematics do. The model is a slight modification of that used in previous NAEP assessments, and states tend to model their assessments on NAEP. A recommended option for Massachusetts is to adapt the three cognitive complexity levels from mathematics and the four levels for reading. More will be said about this in a later section.

How NAEP Mathematics and Reading Levels Might be Used With MCAS

This system could be implemented by the Commonwealth of Massachusetts to help in complying with the provisions of NCLB. In order to demonstrate the utility of the chosen method for rating items on the MCAS, a sample set of assessment items was analyzed individually by two raters from UMass using the coding procedures described below. One rater has been a professor and researcher in this field for more than thirty years, and the other is a doctoral student in this field who has also worked in a testing company for several years. The items were initially coded by the first rater, and the judgments were then confirmed by the second rater. The sample items and their related content codes were then discussed by the two raters in order to establish a common

understanding and set of coding conventions for conducting the content analyses of the various documents. A sample rating sheet is included at the end of this report. Item numbers and cognitive complexity coding were indicated on the sheet by the raters. Specifically, the item number was written down and then the coding was circled, along with a justification for the rating. As neither of the raters is a content expert, the goal was to model the process of item review rather than produce a set of valid ratings.

Conclusions

Each one of the item cognitive level classification methods reviewed in the previous section has advantages and disadvantages and could be applied successfully to an assessment. Webb's method may be hard to implement because of the large number of categories, but these may be reduced to a smaller number by the state. Bloom's taxonomy and the revised Bloom's taxonomy have long histories of use in education, but again have a large number of categories. We believe that the NAEP system could provide sufficient detail for Massachusetts' intended purpose of item cognitive level classifications. The three clear categories used in mathematics, and the four categories in reading, could help measure the complexity of the test items, while at the same time increasing the inter-rater reliability of the classifications. Using a system with more than four categories might decrease the reliability by using more levels with subtle differences that might not add any more information for the stated purpose. This system has been used by NAEP and has served them well over the years, so it is easy to see that it could also serve Massachusetts well. Of course, the NAEP system could be field-tested and tweaked or modified to better serve the needs of the state.

In summary, we believe the NAEP cognitive complexity levels model is the most appropriate system to use on the MCAS. Accordingly, we have attached detailed descriptions of the levels, and reading aspects, along with sample items for all three complexity levels for mathematics (grades 4, 6, 8, and 10) and the four aspects of reading for ELA (grades 4, 7, 10) at the end of this report. The items were chosen to provide samples within each of the three levels and four aspects that illustrate the various demands that might be present at each of these levels.

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Detailed Cognitive Complexity Levels[1]

Low Complexity

This category relies heavily on the recall and recognition of previously learned concepts and principles. Items typically specify what the student is to do, which is often to carry out some procedure that can be performed mechanically. The student is not expected to come up with an original method or solution. The following are some, but not all, of the demands that items in the low-complexity category might make:

- Recall or recognize a fact, term, or property.
- Recognize an example of a concept.
- Compute a sum, difference, product, or quotient.
- Recognize an equivalent representation.
- Perform a specified procedure.
- Evaluate an expression in an equation or formula for a given variable.
- Solve a one-step word problem.
- Draw or measure simple geometric figures.
- Retrieve information from a graph, table, or figure.

Moderate Complexity

Items in the moderate-complexity category involve more flexibility of thinking and choice among alternatives than do those in the low-complexity category. They require a response that goes beyond the habitual, is not specified, and usually has more than a single step. The student is expected to decide what to do, using informal methods of reasoning and problem solving strategies, and to bring together skill and knowledge from various domains. The following illustrate some of the demands that items of moderate complexity might make:

- Represent a situation mathematically in more than one way.
- Select and use different representations, depending on situation and purpose.
- Solve a word problem requiring multiple steps.
- Compare figures or statements.
- Provide a justification for steps in a solution process.
- Interpret a visual representation.
- Extend a pattern.
- Retrieve information from a graph, table, or figure and use it to solve a problem requiring multiple steps.
- Formulate a routine problem, given data and conditions.
- Interpret a simple argument.

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[1]From *Mathematics Framework for the 2005 National Assessment of Educational Progress*. (2005a)

High Complexity

High-complexity items make heavy demands on students, who must engage in more abstract reasoning, planning, analysis, judgment, and creative thought. A satisfactory response to the item requires that the student think in abstract and sophisticated ways. Items at the level of high complexity may ask the student to do any of the following:

- Describe how different representations can be used for different purposes.
- Perform a procedure having multiple steps and multiple decision points.
- Analyze similarities and differences between procedures and concepts.
- Generalize a pattern.
- Formulate an original problem, given a situation.
- Solve a novel problem.
- Solve a problem in more than one way.
- Explain and justify a solution to a problem.
- Describe, compare, and contrast solution methods.
- Formulate a mathematical model for a complex situation.
- Analyze the assumptions made in a mathematical model.
- Analyze or produce a deductive argument.
- Provide a mathematical justification.

Detailed Aspects of Reading[1]

Forming a General Understanding

To form a general understanding, the reader must consider the text as a whole and have a global knowledge of it. Students may be asked, for example, to demonstrate a general understanding by providing the topic of a passage, explaining the purpose of an article, or reflecting on the theme of a story. Tasks and questions that measure this aspect of reading include:

- Write a paragraph telling what the story/poem is about.
- Which of the following is the best statement of the theme of the story?
- Write a paragraph telling what this article generally tells you.
- What is this text supposed to help you do?
- What would you tell someone about the main character?

Developing Interpretation

To develop an interpretation, the reader must extend initial impressions to develop a more complete understanding of what was read. This process involves linking information across parts of a text as well as focusing on specific information. Questions that assess this aspect of reading include drawing inferences about the relationship of two pieces of information and providing evidence to determine the reason for an action. Questions that assess this aspect of reading include:

- What event marked a change in the plot or situation?
- What caused the character to _____?
- What caused this event?
- What is the meaning of _____?
- What type of person is this character? Explain.
- What does this idea imply?
- In what ways are these ideas important to the topic or theme?
- What will be the result of this step in the directions?
- What does this character think about _____?

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[1]From *Reading Framework for the 2005 National Assessment of Educational Progress*. (2005b)

Making Reader/Text Connections

To make reader/text connections, the reader must link information in the text with knowledge and experience. This might include applying ideas in the text to the real world. All student responses must be text based to receive full credit. NAEP does not ask students about their personal feelings. Tasks and questions that assess this aspect of reading include:

- Why do _____ (bullfrogs eat dragonflies)? Is there anything else you think _____ (they might eat)? Explain your answer using information from the text and what you know.
- Colonists lived in different ways than we live today. Tell about two of these differences.
- Would you have liked to live in colonial times? Use information from the text to support your answer.
- In this story, two characters chose different ways to solve a problem. Which solution was most effective in solving the problem? Use information from the text to support your answer.
- How would you change the directions to build this _____ if you did not have a _____?

Examining Content and Structure

Examining text content and structure requires critically evaluating, comparing and contrasting, and understanding the effect of features such as irony, humor, and organization. Questions used to assess this aspect of reading require readers to stand apart from the text, consider it objectively, and evaluate its quality and appropriateness. Knowledge of text content and structure is important. Questions ask readers to determine the usefulness of a text for a specific purpose, evaluate the language and textual elements, and think about the author's purpose and style. Some questions also require readers to make connections across parts of a text or between texts. For example, students might be asked to compare a poem and a story with the same theme or relate information from a first-person account to a textbook description of an event. Questions that assess this aspect of reading include:

- Compare the structure of this magazine article to that one.
- How useful would this be for _____? Why?
- Does the author use (irony, personification, humor) effectively? Explain.
- What is the author's point of view? Using the text, provide a sentence or two to support your response.
- Is this information needed for _____? Explain your reasoning.
- What other information would you need to find out about _____? Support your answer with information from the text.

COGNITIVE COMPLEXITY RATING FORM **MATHEMATICS, GRADE 8, 2003**

Item	Strand	Level of Demand	Justification
1		L M H	
2		L M H	
3		L M H	
4		L M H	
5		L M H	
6		L M H	
7		L M H	
8		L M H	
9		L M H	
10		L M H	
11		L M H	
12		L M H	
13		L M H	
14		L M H	
15		L M H	
16		L M H	
17		L M H	
18		L M H	
19		L M H	
20		L M H	
21		L M H	
22		L M H	
23		L M H	
24		L M H	
25		L M H	

Appendix A

Examples of Coding of

Cognitive Complexity for Mathematics

LOW COMPLEXITY

6 Which of the following is a **true** statement?

A. Parallel lines always intersect.

B. Intersecting lines are never parallel.

C. Perpendicular lines never intersect.

D. Intersecting lines are always perpendicular.

18 Faith charges $6.50 per hour for babysitting. How much will she earn for 5 hours of babysitting?

A. $11.50

B. $30.25

C. $32.50

D. $40.50

MODERATE COMPLEXITY

21 Shannon read that fourteen thousand, nine hundred eighty-seven people live in Dukes County. Which of the following is another way to write this number?

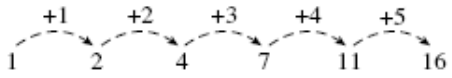
A. 10,000 + 4,000 + 900 + 80 + 7

B. 14,000,987

C. 14 × 100 + 9 × 10 + 87

D. 1 + 4 + 9 + 8 + 7

37 Anping is making a number pattern. Each new number in the pattern is found by increasing the amount added to the previous number by 1, as shown below.



If he continues the pattern in the same way, what will be the 10th number in the pattern?

A. 20

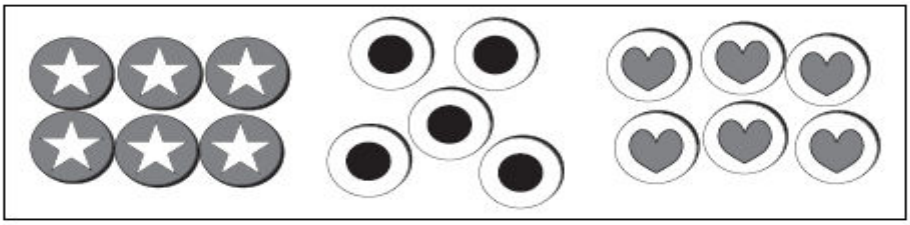
B. 26

C. 37

D. 46

HIGH COMPLEXITY

27 The 17 tokens shown below are used to play a game. Each kind of token is worth a different number of points.



The picture below shows two clues about the number of points each kind of token is worth.

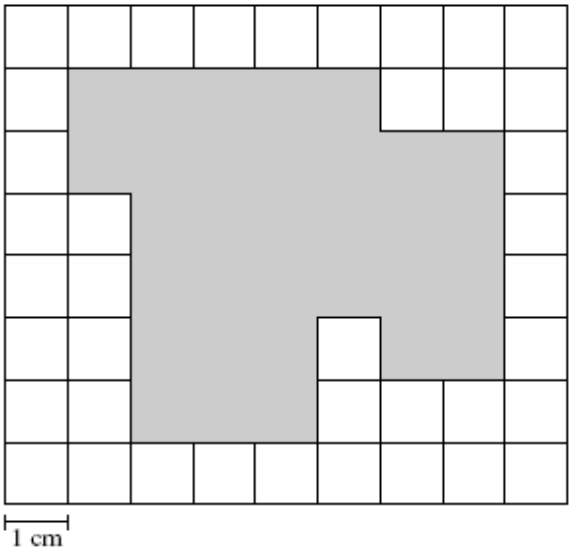
Clue #1

Clue #2

a. If each  is worth 20 points, how many points is each  worth? Show your work or explain how you got your answer.

b. If 4 friends play the game, they will divide the 17 tokens into 4 groups so that each friend's group of tokens is worth the same number of points. What is the total number of points each friend's group of tokens is worth? Show your work or explain how you got your answer.

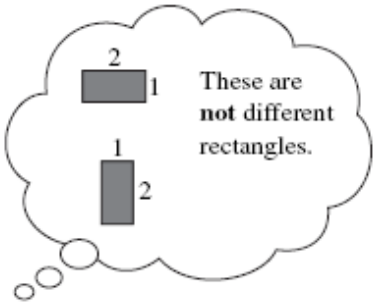
31 Chester drew the shaded figure on the grid paper shown below.



a. What is the area, in square centimeters, of the **shaded** figure on the grid above? Show or explain how you got your answer.

b. Chester drew a rectangle that had the **same** area as the shaded figure on the grid above. What could be the dimensions (length and width) of the rectangle he drew? Show or explain how you got your answer.

c. Is there a **different** rectangle that Chester could have drawn that has the **same** area as the shaded figure on the grid above? Show or explain how you got your answer.



GRADE 6 MATHEMATICS

LOW COMPLEXITY

5 What is the value of the expression shown below?

$$2 + 4 \times (3 + 7)$$

A. 21

B. 25

C. 42

D. 60

16 If $h - 6 = 10$, which of the following is true?

A. $h = 10 + 6$

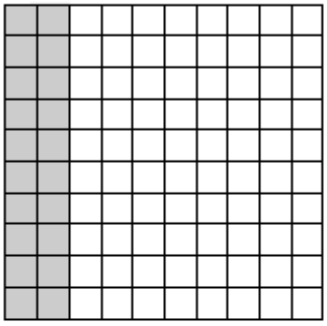
B. $h = 10 - 6$

C. $h = 10 \times 6$

D. $h = 10 \div 6$

MODERATE COMPLEXITY

14 The grid below is shaded to represent a fraction.



What fraction of the grid is shaded?

A. $\frac{1}{20}$

B. $\frac{1}{5}$

C. $\frac{1}{4}$

D. $\frac{1}{3}$

21 On Kelly's homework, the answer to the subtraction problem shown below was marked wrong.

$$\begin{array}{r} 178 \\ -\ 59 \\ \hline 129 \end{array}$$

Which of the following is one way for her to discover that her answer is wrong?

A. $129 - 59 = 70$

B. $129 + 59 = 188$

C. $178 + 129 = 307$

D. $178 + 59 = 237$

HIGH COMPLEXITY

31 The circular ring of a circus has a radius of 10 feet.

a. In your Student Answer Booklet, sketch the ring. Show and label the radius of the ring you sketched.

b. What is the diameter, in feet, of the ring? Show or explain your work.

c. What is the area, in square feet, of the ring? Show or explain your work. (Use 3.14 for π.)

13 Diane has taken 9 math quizzes this year. Her quiz scores are shown below.

98 94 86 88 89 100 82 91 100

a. In your Student Answer Booklet, create a stem-and-leaf plot that represents Diane's math quiz scores. Be sure to include a key.

b. What is the mean of Diane's math quiz scores? Show your work or explain your answer.

c. What is the mode of Diane's math quiz scores? Show your work or explain your answer.

d. Diane will take one more math quiz this year. If the highest score possible on the quiz is 100, is it possible for Diane to have a quiz average (mean) of 95? Show your work or explain your answer.

GRADE 10 MATHEMATICS

LOW COMPLEXITY

14 Which of the following is closest to $\sqrt{53}$?

A. 6.7

B. 7.3

C. 7.7

D. 8.3

23 Ralph simplified the expression

$$15\left(\frac{1}{3}+\frac{2}{5}\right)$$

to

$$(5+6).$$

Which of the following properties of the real numbers did Ralph use?

A. associative property of multiplication

B. commutative property of multiplication

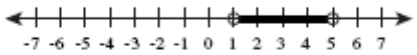
C. distributive property

D. multiplicative identity property

MODERATE COMPLEXITY

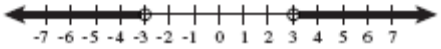
28 Which of the following graphs shows the solution set for the inequality shown below?

$$|x + 1| < 4$$

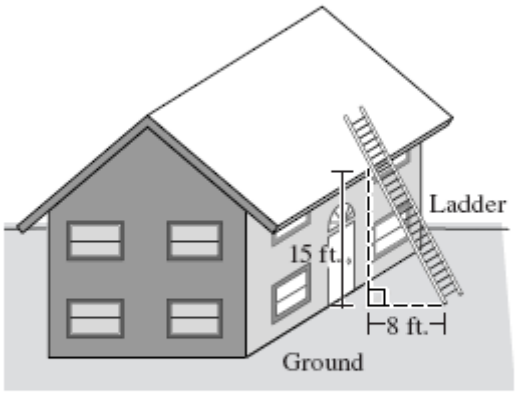
A. 

B. 

C. 

D. 

33 Using the measures shown in the sketch, what is the length of the section of the ladder from the point where it rests on the ground to the point where it touches the house?



A. 4.8 ft.

B. 7 ft.

C. 17 ft.

D. 23 ft.

Appendix B

Examples of Coding of

Aspects of Reading for ELA

Forming a General Understanding

18 What is the theme of both poems?

A. People talk too much.

B. People are funny all the time.

C. People can make us feel like crying by ourselves.

D. People have different effects on our feelings and moods.

Developing Interpretation

9 Explain what made Trudy's swim across the English Channel so dangerous. Use important and specific information from the article to support your answer.

Making Reader/Text Connections

36 This article gives reasons for keeping a journal. Explain THREE reasons for keeping a journal, using important and specific information from the article to support your answer.

Examining Content and Structure

14 The introduction to the story states that Mullah Nasreddin "solves life's problems with a mixture of foolishness and wisdom."

a. Give an example of something Mullah Nasreddin does that can be seen as BOTH foolish and wise.

b. Explain how this action can be seen as foolish and how it can be seen as wise.

Use important and specific information from the story to support your answer.

GRADE 7 English Language Arts

Forming a General Understanding

10 Which of the following characteristics of a hero's tale is **not** present in this excerpt?

A. a mystery birth

B. a wise prophet

C. a superhuman feat

D. a magical potion

Developing Interpretation

27 Describe how the girl's feelings and actions toward the dog change throughout the excerpt. Use relevant and specific information from the beginning, middle, and end of the excerpt to support your answer.

Making Reader/Text Connections

18 The speaker states "my grandmothers were strong" three times in the poem. Explain how the imagery in the poem supports that statement. Use relevant and specific examples from the poem to support your response.

Examining Content and Structure

10 Which of the following characteristics of a hero's tale is **not** present in this excerpt?

A. a mystery birth

B. a wise prophet

C. a superhuman feat

D. a magical potion

GRADE 10 English Language Arts

Forming a General Understanding

21 Which of the following **best** expresses the narrator's mood throughout the excerpt?

A. disbelief at his good fortune

B. seriousness over the importance of marriage

C. gloominess over the struggle to win

D. satisfaction with a job well done

Developing Interpretation

19 The word *barter* means to trade something in exchange for something else. Explain why "Barter" is an appropriate title for the poem. Use relevant and specific information from the poem to support your answer.

Making Reader/Text Connections

WRITING PROMPT

Heroism can mean different things to different people. Literature is full of characters that can be considered heroic.

From a work of literature you have read in or out of school, select a character that, in your opinion, is heroic. In a well-developed composition, identify that character and explain why he or she is heroic.

Examining Content and Structure

9 In the article, the author frequently uses non-technical language and explanations to describe the complex, technical process of moving a lighthouse. Identify at least **three** such examples and explain how each one helps the reader understand the moving process. Use relevant and specific information from the article to support your answer.