



Arkansas Comprehensive Testing, Assessment and Accountability Program

Released Item Booklet

**Benchmark Examination
Intermediate (Grade 6)**

April 2003 Administration

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Arkansas Department of Education

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PART I Overview

The criterion-referenced tests implemented as part of the **Arkansas Comprehensive Testing, Assessment and Accountability Program (ACTAAP)** are being developed in response to Arkansas Legislative Act 1172, which requires the State Board of Education to develop a comprehensive testing program that includes performance assessment of the core concepts, abilities, thinking, and problem-solving skills defined by the Arkansas Curriculum Frameworks.

As part of this program, all grade 6 students in Arkansas public schools participated in the *Intermediate (Grade 6) Benchmark Examination* in April 2003.

This *Released Item Booklet* for the *Intermediate (Grade 6) Benchmark Examination* contains test questions or items that were asked of students during the April 2003 operational administration. The test items included in Part II of this booklet are those items that contributed to the student performance results for that administration.

Students had approximately two hours to take each test session during the three days of testing in April 2003. Students were permitted to use a calculator for the Mathematics items (both multiple-choice and open-response), with the exception of questions 1 – 8. Students were also supplied with a reference sheet to be used during the Mathematics sessions so that all students would have equal access to this information during testing. (See the reference sheet on page 24 of this booklet.) All of the Mathematics and Reading multiple-choice items within this booklet have the correct response marked with an asterisk (*). The open-response items for Mathematics and Reading and the two essay topics for Writing are listed with scoring guides (rubrics) immediately following. These rubrics provide information on the scoring model used for each subject, with the scoring model for Writing defining the overall curricular and instructional link for that subject with the *Language Arts Curriculum Framework*. The domain scoring model, implemented within Arkansas for a number of years, illustrates the appropriate instructional approaches for Writing within the state.

The development of the *Intermediate (Grade 6) Benchmark Examination* was based on the Arkansas Curriculum Frameworks. These frameworks have common distinct levels: *Strands* to be taught in concert, *Content Standards* within each Strand, and *Student Learning Expectations* within each Content Standard. Abridged versions of the *Mathematics Curriculum Framework* and *Language Arts Curriculum Framework—Reading: Strand 2* can be found in Part III of this booklet. It is important to note that these abridged versions list only the predominant Strand, Content Standard, and Student Learning Expectation associated with each item. However, since many key concepts within the Arkansas Curriculum Frameworks are interrelated, in many cases there are other item correlations or associations across Strands, Content Standards, and Student Learning Expectations.

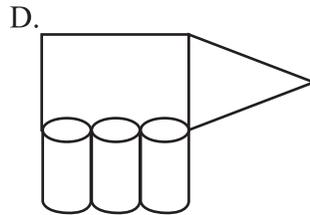
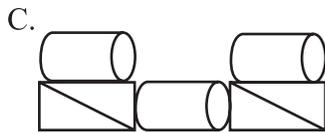
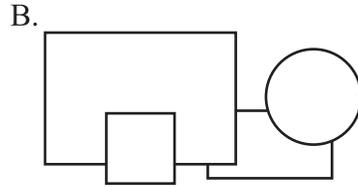
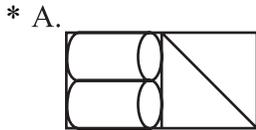
Part IV of the *Released Item Booklet* contains a tabular listing of the Strand, Content Standard, and Student Learning Expectation that each question was designed to assess. The multiple-choice and open-response items found on the *Intermediate (Grade 6) Benchmark Examination* were developed in close association with the Arkansas education community. Arkansas teachers participated as members of Content Advisory Committees for each subject area, providing routine feedback and recommendations for all items. The number of items associated with specific Strands, Content Standards, and Student Learning Expectations was based on approximate proportions suggested by the Content Advisory Committees, and their recommendations were accommodated to the greatest extent possible given the overall test design. Part IV of the *Released Item Booklet* provides Arkansas educators with specific information on how the *Intermediate (Grade 6) Benchmark Examination* items align or correlate with the Arkansas Curriculum Frameworks to provide models for classroom instruction.

PART II Released Items (Mathematics)

CALCULATOR NOT PERMITTED — ITEMS 1 – 8

1. Which of the following models uses **all** of the shapes listed below?

- triangle
- square
- rectangle
- cylinder



2. In the year 2000, the Detroit Tigers played 162 baseball games. If n stands for the number of games won, which expression tells how many games they lost in 2000?

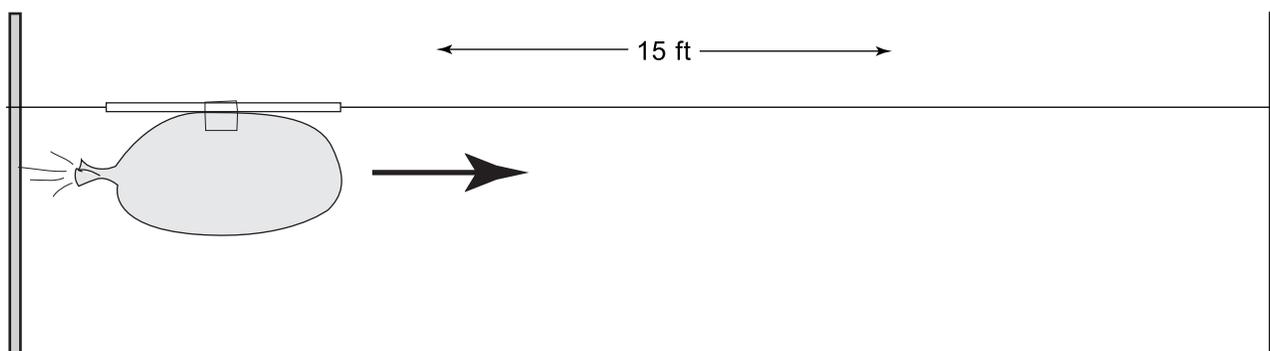
- A. $n + 162$
- B. $n - 162$
- * C. $162 - n$
- D. $160n$

3. Sam goes out to dinner every fourth day and goes to a movie every sixth day. He goes out to dinner and goes to a movie today. How many days from today will he go to dinner and to a movie on the same day?

- A. 2
- B. 10
- * C. 12
- D. 24

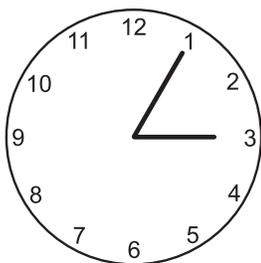
PART II Released Items (Mathematics)

Use the following diagram to answer question 4.



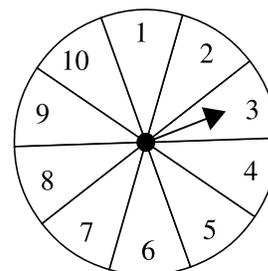
4. The diagram above shows Marla's balloon experiment. First, she attached a straw to the top of an inflated balloon. Then she ran a 15-foot string through the straw. Marla then let the balloon go. She discovered the balloon traveled 15 feet, at a speed of 7.5 feet per second. How long did it take the balloon to travel 15 feet?
- A. 1 second
 - * B. 2 seconds
 - C. 7.5 seconds
 - D. 15 seconds

Use the diagram below to answer question 5.



5. Which of the following is a reasonable estimate for the measure of the interior angle created by the hands of the clock above?
- A. 10°
 - B. 30°
 - * C. 60°
 - D. 90°

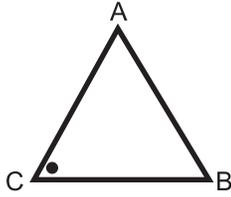
Use the diagram below to answer question 6.



6. The spinner above is labeled with the numbers 1 through 10. Which of the following statements will **always** apply to the spinner?
- A. The pointer will land on an odd number.
 - B. The pointer will land on an even number.
 - * C. The pointer will land on a number less than 11.
 - D. The pointer will land on a number greater than 1.

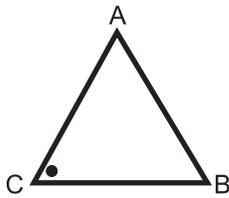
PART II Released Items (Mathematics)

Use the following figure to answer question 7.

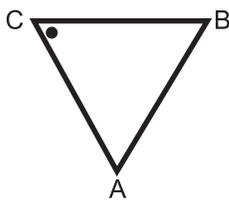


7. Which figure shows a 90° clockwise rotation about vertex C of the shape above? You may use your pattern blocks to help you solve this problem.

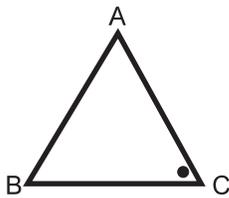
A.



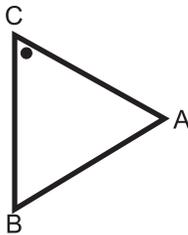
B.



C.



* D.



8. Which of the following expressions is equal to 2.03×10^2 ?

A. 0.0203

B. 200.03

* C. 203

D. 20.30

PART II Released Items (Mathematics)

CALCULATOR PERMITTED — ITEMS 9 – 40

9. Mr. Sneider’s class is planning a cookout for Friday before spring break. There are 24 students in the class, and they are going to order 2 cans of soda per student (48 cans total). Mr. Sneider took a poll and found that $\frac{1}{3}$ of the students wanted cola, $\frac{1}{4}$ wanted orange, and $\frac{1}{6}$ wanted cherry flavor. The remainder of the students wanted root beer. What fraction of the class wanted root beer?

- * A. $\frac{1}{4}$
- B. $\frac{1}{6}$
- C. $\frac{1}{8}$
- D. $\frac{1}{12}$

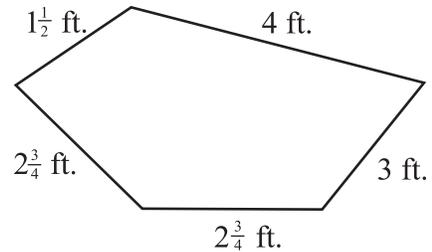
10. You want to measure the area of the kitchen counter. Which one of the following units of measurement should you use?

- A. liters
- B. grams
- * C. square feet
- D. cubic inches

11. Virgil has \$150 in his bank account. If he deposits \$15 weekly, which one of the following equations will show how much money he has in his account (D) at the end of “w” weeks?

- A. $D = 150 + \frac{15}{w}$
- B. $D = (150)(15w)$
- * C. $D = 150 + 15w$
- D. $D = 150w + 15$

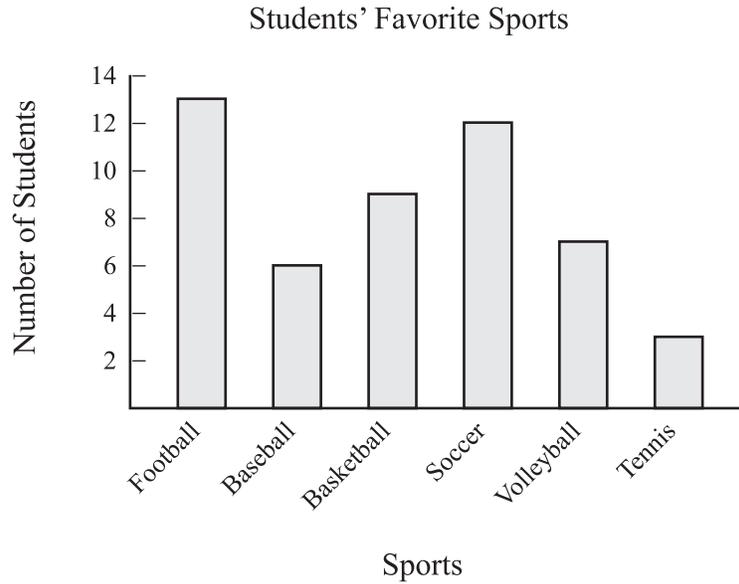
12. What is the perimeter of the following figure?



- A. 7 ft.
- B. $8\frac{1}{2}$ ft.
- C. 12 ft.
- * D. 14 ft.

PART II Released Items (Mathematics)

Use the bar graph shown below to answer question 13.



13. According to the bar graph shown above, how many more students said they liked volleyball than said they liked baseball?

- * A. 1
- B. 2
- C. 3
- D. 4

14. Mr. Burger decided to ask 6 of his co-workers to invite 5 friends each to a fundraising event. Each of those friends will be asked to invite 5 more friends.

How many people are invited in the 3rd round of the invitations? (The 6 co-workers receive the 1st round of invitations.)

- A. 25 people
- B. 30 people
- C. 125 people
- * D. 150 people

15. A bookstore has received a shipment of textbooks. Each book measures 8 in. by 12 in. by 2 in. If the box the books came in measures 24 in. by 16 in. by 20 in., how many books are in the box if the box is full?

- A. 22
- * B. 40
- C. 60
- D. 82

PART II Released Items (Mathematics)

16. Dante is going to jog to Jared's house, and he wants to estimate how far it is. Normally, Dante jogs at 5 miles per hour. If it takes Dante 18 minutes to jog to Jared's house, how far away does Jared live?

- A. 1 mile
- * B. 1.5 miles
- C. 1.8 miles
- D. 2 miles

17. The improper fraction $\frac{11}{5}$ is equal to which of the following mixed numbers?

- A. $1\frac{1}{5}$
- B. $1\frac{4}{5}$
- * C. $2\frac{1}{5}$
- D. $11\frac{1}{5}$

18. Study the number sequence shown below.

14, 18, 13, 17, . . .

According to the pattern, what are the next two integers?

- A. 18, 13
- * B. 12, 16
- C. 13, 18
- D. 14, 17

19. Carole is studying the effects of bleach on different fabric colors. She is testing 4 different brands of bleach on 4 different fabric colors. If every brand of bleach is tested on every fabric color, what is the total number of tests she will conduct?

- A. 8
- B. 12
- * C. 16
- D. 20

20. Juan wants to break the high jump record at his school. To break the record he needs to jump 66 inches high. How high, in feet, must Juan jump to break the record?

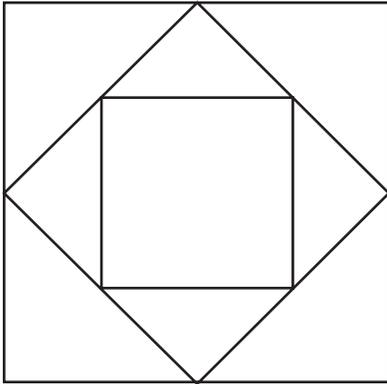
- A. 5 feet
- * B. $5\frac{1}{2}$ feet
- C. 6 feet
- D. $6\frac{1}{2}$ feet

21. The distance from Batesville to Lockesburg is 270 miles by train. The train leaves Batesville at 5:00 p.m. and travels at an average speed of 90 miles per hour. If the train makes a 30-minute stop in Hot Springs, what time will the train arrive in Lockesburg?

- A. 3:30 p.m.
- B. 5:30 p.m.
- C. 8:00 p.m.
- * D. 8:30 p.m.

PART II Released Items (Mathematics)

Use the figure below to answer question 22.



22. Which of the following polygons **cannot** be found within this design?

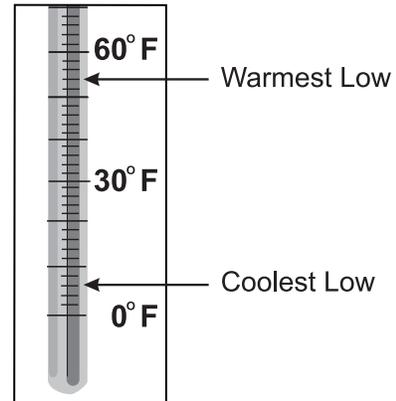
- A. square
- B. triangle
- C. rectangle
- * D. trapezoid

23. What is the next number in the sequence below?

1, 5, 25, 125, _____

- A. 225
- * B. 625
- C. 3,125
- D. 15,625

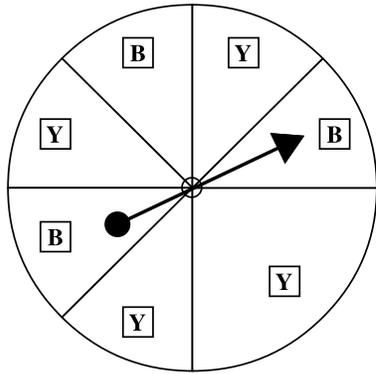
24. Tanya recorded the low temperature each day during the month of April. She marked the warmest low and the coolest low for the month on the thermometer below. What was the difference between the warmest low and the coolest low during April?



- A. 30°
- B. 46°
- * C. 48°
- D. 54°

PART II Released Items (Mathematics)

Use the diagram below to answer question 25.



25. On the spinner shown above, “Y” stands for yellow and “B” stands for blue. Using this spinner, what is the probability of spinning a yellow?

- A. $\frac{3}{8}$
- * B. $\frac{5}{8}$
- C. $\frac{3}{5}$
- D. $\frac{5}{3}$

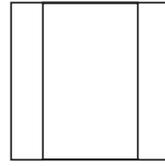
26. Mrs. Thomas gave her students the following set of directions:

1. Pick any positive number greater than 10.
2. Create a pattern that follows these rules:
 - add 4 to the number
 - subtract 7 from the new number
 - add 4 to the newest number
 - subtract 7 from that number

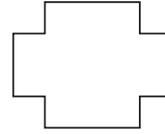
Laura’s first number is 35. What is the fifth number in her pattern?

- * A. 29
- B. 32
- C. 36
- D. 39

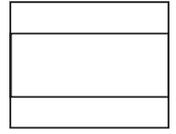
Use the diagram below to answer question 27.



TOP & BOTTOM



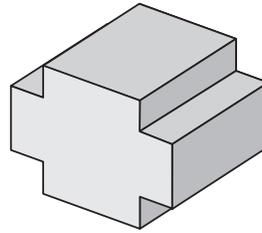
FRONT & BACK



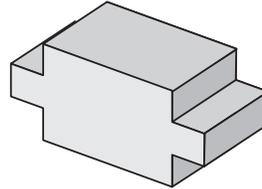
RIGHT & LEFT

27. Which of the following 3-dimensional objects is represented in the 2-dimensional views above?

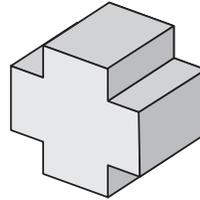
* A.



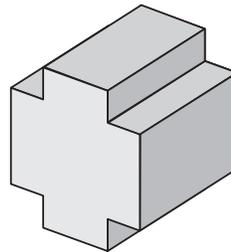
B.



C.



D.



PART II Released Items (Mathematics)

28. Bill answered 28 questions correctly on a 40-question math test. What percent of the questions did he answer correctly?

- A. 0.007%
- B. 0.7%
- C. 11.2%
- * D. 70%

29. Mrs. Shane had 225 square feet of her classroom walls covered with posters. To stay within fire safety codes, the fire inspector told the classroom teachers that they could cover only a total of 200 square feet of classroom walls with posters. Which of the following posters could she take off the wall in order to have exactly 200 square feet covered?

- A. 2 feet \times 2 feet
- B. 3 feet \times 3 feet
- C. 4 feet \times 4 feet
- * D. 5 feet \times 5 feet

Use the information below to answer question 30.

SCHOOL CARNIVAL PRIZES	
PRIZES	QUANTITY
Pen	100
Book	50
Radio	10
Book Bag	35
CD Player	5

30. Using the data above, what is the probability that Deb will win a pen at the school carnival?

- A. 5%
- B. 20%
- C. 25%
- * D. 50%

Use the chart below to answer question 31.

Drew's Number Sets	
10	8
14	10
18	12
22	14
?	?

31. Drew and Quinton played a number game in which Drew called out 4 sets of numbers as shown above, and Quinton had to figure out the fifth set of numbers. What is the fifth set of numbers in Drew's pattern?

- A. 24, 16
- B. 24, 18
- * C. 26, 16
- D. 26, 18

32. Approximately 15,898,000 air travelers use John F. Kennedy International Airport each year. **About** how many air travelers use John F. Kennedy International Airport each month?

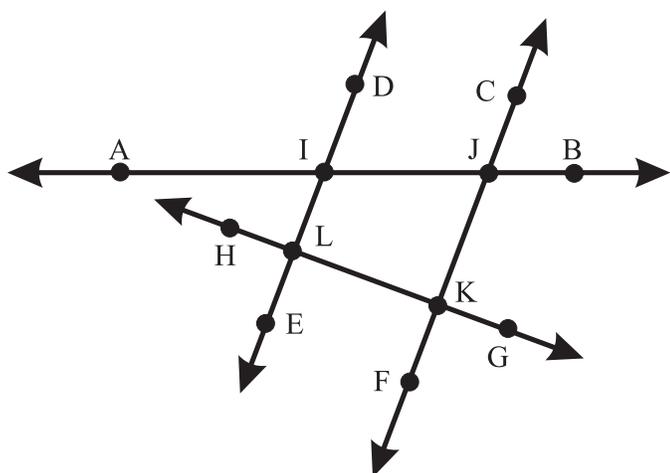
- A. 1,300
- B. 13,000
- C. 130,000
- * D. 1,300,000

PART II Released Items (Mathematics)

33. You are in a room that is 25 feet long, 20 feet wide, and 8 feet high. How many cubic feet of air does the room contain?

- A. 160 cubic feet
- B. 500 cubic feet
- C. 3500 cubic feet
- * D. 4000 cubic feet

Use the figure below to answer question 34.



34. Mr. Patterson drew these lines on the board and made the following four statements:

- Line DE and line CF are parallel.
- Line HG is perpendicular to line DE and line CF.
- Line AB intersects line DE and line CF.
- Angle $\underline{\quad ? \quad}$ is a right angle.

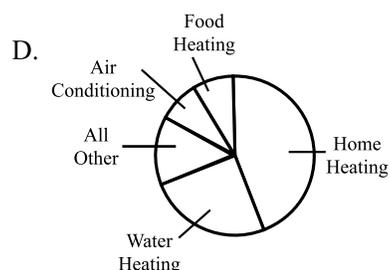
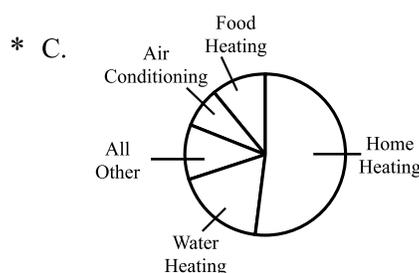
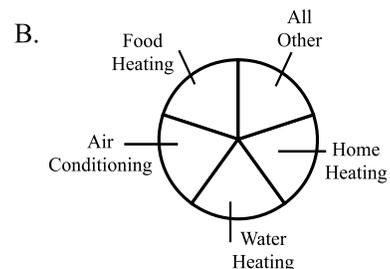
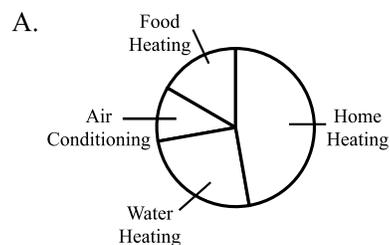
Which of the following angles could complete Mr. Patterson's fourth statement?

- A. $\angle AID$
- B. $\angle CJB$
- * C. $\angle JKG$
- D. $\angle KJI$

Use the information below to answer question 35.

ENERGY IN AMERICAN HOMES	
USE	PERCENTAGE
Home heating	52%
Water heating	18%
Food heating/cooking	11%
Air conditioning	8%
All other uses	11%

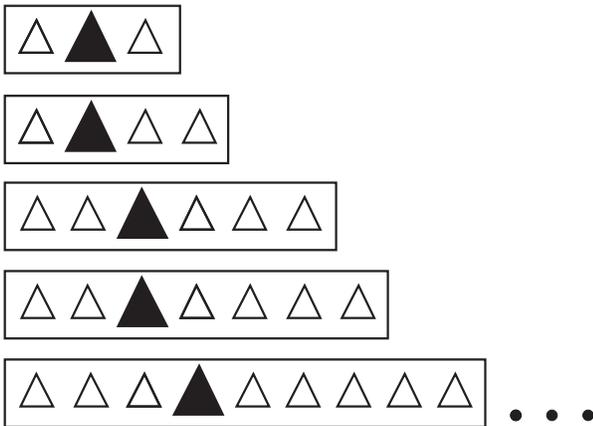
35. The table above shows how energy is used in American homes, by percentage. Which of the following graphs **best** represents these data?



PART II Released Items (Mathematics)

36. Marc is making a scale model of his classroom, including the desks. The length of Marc's classroom is 24 feet. The length of each desk is 2 feet. The length of Marc's model classroom is 12 inches. What should be the length of each model desk?
- * A. 1 inch
 - B. 2 inches
 - C. 6 inches
 - D. 12 inches

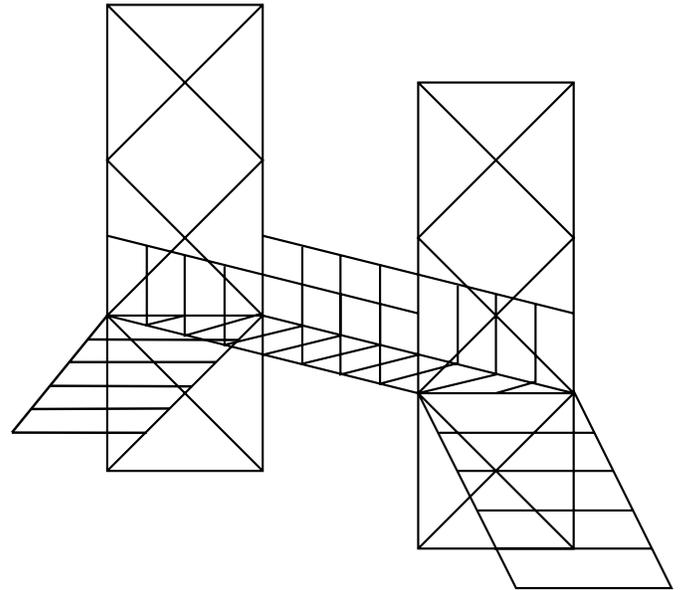
Use the diagram below to answer question 37.



37. Given the pattern above, what is the 6th block of shapes?
- A.
 - B.
 - C.
 - * D.

38. Heather uses 1.5 ounces of liquid fertilizer every time she waters her houseplants. If she bought a 64.5-ounce container of liquid fertilizer, how many times will she be able to water her plants?
- A. 0.43
 - B. 4.3
 - * C. 43
 - D. 430

Use the diagram below to answer question 39.

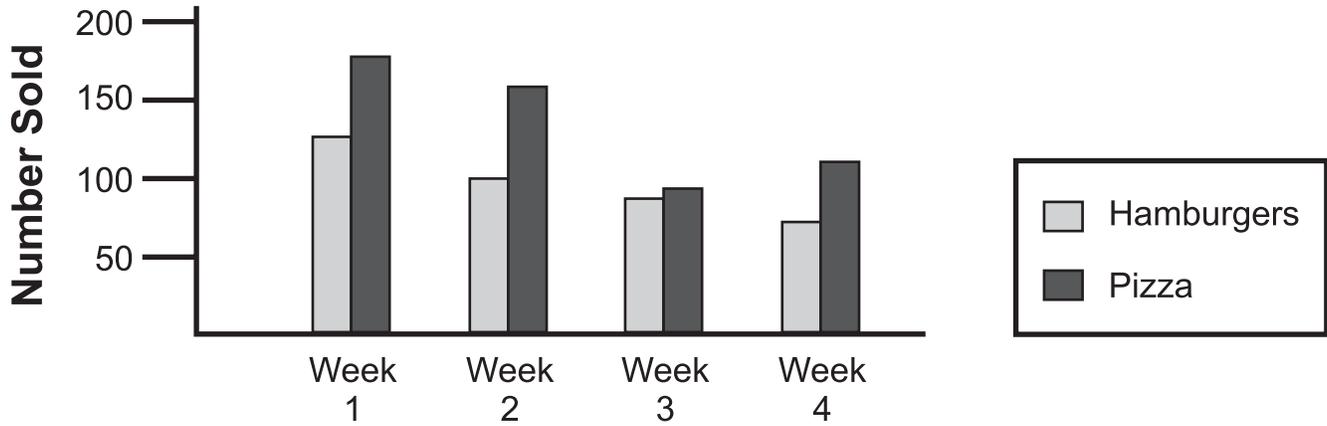


39. Ms. Key asked her class to construct a toothpick bridge. The model the students made for their bridge is shown above. Which of the following shapes does **not** appear in the model?
- * A. cone
 - B. triangle
 - C. polygon
 - D. rectangle

PART II Released Items (Mathematics)

Use the graph below to answer question 40.

Lunchroom Sales



40. The graph above shows the lunchroom sales of pizza and hamburgers for the past month. Which of the following statements best describes the trend for hamburger sales?
- A. Hamburger sales are increasing.
 - * B. Hamburger sales are decreasing.
 - C. Hamburger sales are about the same each week.
 - D. More hamburgers than pizza are sold each week.

PART II Released Items (Mathematics)

MATHEMATICS OPEN-RESPONSE ITEM A

A. Mr. Dryden asked each student to create a polygon that fits the following conditions:

- it has more than 4 sides,
- it has at least 1 pair of parallel sides, and
- it has no right angles.

You may use your pattern blocks to solve these problems.

1. Draw 2 polygons that fit the conditions listed above.
2. Compare your 2 polygons and list at least 2 comparisons (similarities or differences) using the number of sides, types of angles, parallel lines, number of vertices, type of 2-dimensional shape, etc.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM A

SCORE	DESCRIPTION
4	4 points – Response contains no incorrect work.
3	3 points.
2	2 points.
1	1 point or some minimal understanding shown (e.g., 2 different polygons that fit 2 of the 3 criteria).
0	No understanding shown.
B	Blank – No Response. A score of “B” will be reported as a score “NA” (No Attempt – Zero Score).

PART II Released Items (Mathematics)

Solution

Part 1: Any 2 different polygons (not congruent or similar) that fit the following conditions:

- Each polygon has more than 4 sides,
- Each polygon has at least 1 pair of parallel sides,

AND

- Each polygon has no right angles.

Part 2: At least 2 accurate and specific comparisons of:

- Number of sides of 2 different polygons.
- Types of angles (e.g., obtuse, acute).
- Number of pairs of parallel sides (e.g., “My hexagon has 3 sets of parallel sides and the octagon has 4 sets of parallel sides”).
- Number of vertices.
- Types of 2-dimensional shapes (e.g., hexagon, octagon, etc.).
- Other appropriate mathematical comparison.

Scoring (4 total points possible)

Part 1: (2 points possible)

- 1 point for each polygon drawn to fit the conditions listed in the Part 1 solution.
(Note: Do not give 2 points if polygons are congruent or similar.)

Part 2: (2 points possible)

- 1 point for each of 2 accurate and specific comparisons based on polygons drawn in Part 1.
(Note: Polygon(s) might not fit the conditions required in the item.)

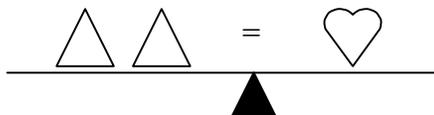
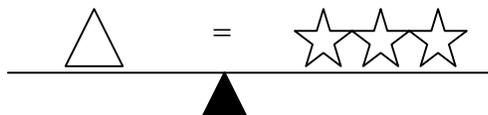
Also, do not give credit for comparisons that state the required conditions (they have more than 4 sides, they have at least 1 set of parallel sides, they don't have any right angles, or they are polygons).

(Note: If congruent polygons are drawn in Part 1, do not give more than 1 point in Part 2.)

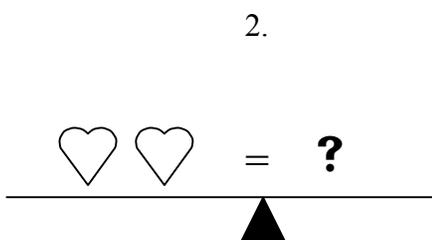
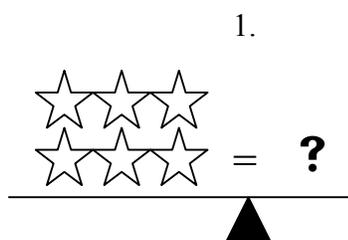
PART II Released Items (Mathematics)

MATHEMATICS OPEN-RESPONSE ITEM B

B. The scales below use a , a , and a  to balance.



How many shapes would be needed to balance the scales shown below? Be sure to use shapes other than those shown on the left side of the scale. Explain two ways you can balance each scale using words, numbers, and/or pictures.



BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM B

SCORE	DESCRIPTION
4	4 points – Response contains no incorrect work.
3	3 points.
2	2 points.
1	1 point or some minimal understanding shown.
0	No understanding shown.
B	Blank – No Response. A score of “B” will be reported as a score “NA” (No Attempt – Zero Score).

PART II Released Items (Mathematics)

Solution

Part 1: Any 2 of the following:

- 2 triangles,
- 1 heart, or
- 1 triangle and 3 stars.

Part 2: Any 2 of the following or other correct combination:

- 4 triangles,
- 12 stars,
- 2 triangles and 6 stars,
- 1 triangle and 9 stars,
- 3 triangles and 3 stars,
- 1 heart and 2 triangles,
- 1 heart, 1 triangle, and 3 stars, or
- 1 heart and 6 stars.

Scoring (4 total points possible)

Part 1: (2 points possible)

- 1 point for each of 2 correct answers as listed above.

Part 2: (2 points possible)

- 1 point for each of 2 correct answers as listed above.

PART II Released Items (Mathematics)

MATHEMATICS OPEN-RESPONSE ITEM C

- C. A local builder is finishing the outside of new homes. Below is a list of the color choices for the homes. Each home will have one color choice for siding, one color choice for shutters, and one color choice for window trim.



COLOR CHOICES FOR NEW HOMES		
SIDING	SHUTTERS	WINDOW TRIM
Gray Cream White	Maroon Green	White Cream

1. Show possible outcomes that show the entire set of color choices from which the builder can choose.
2. If the builder puts one house with each possible color choice on a new street, what is the probability that the house that Mr. and Mrs. Watson buy will have cream siding? Explain your reasoning.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

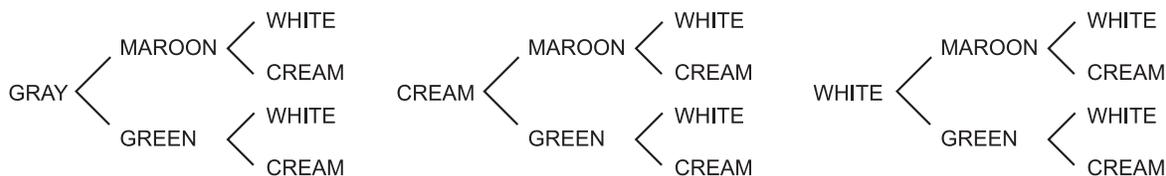
RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM C

SCORE	DESCRIPTION
4	4 points – Response contains no incorrect work.
3	3 points.
2	2 points.
1	1 point or some minimal understanding shown (e.g., lists 4–6 correct combinations).
0	No understanding shown.
B	Blank – No Response. A score of “B” will be reported as a score “NA” (No Attempt – Zero Score).

PART II Released Items (Mathematics)

Solution

Part 1: Diagram or list of 12 possible outcomes (3 colors for each option) as shown below:



OR

Siding	Shutters	Window Trim
Gray	Maroon	White
Gray	Maroon	Cream
Gray	Green	White
Gray	Green	Cream

Siding	Shutters	Window Trim
Cream	Maroon	White
Cream	Maroon	Cream
Cream	Green	White
Cream	Green	Cream

Siding	Shutters	Window Trim
White	Maroon	White
White	Maroon	Cream
White	Green	White
White	Green	Cream

Part 2: Probability of buying a house with cream siding is:

- 1/3.
- OR**
- 1 out of 3.
- OR**
- 4/12.
- OR**
- 4 out of 12.
- OR**
- Equivalent.

Work/Explanation: Since 4 out of 12 possible color choices have cream siding, the probability of buying a house with cream siding is 4/12, etc.

OR

Since there are 3 color choices for siding and 1 of them is cream, the probability would be 1/3.

Scoring (4 total points possible)

Part 1: (2 points possible)

- 2 points for correct and complete diagram or list of 12 options.
- OR**
- 1 point for either of the following:
 - Partial diagram or list of 7 – 11 correct options, or
 - Response states, “There are 12 combinations,” but doesn’t list them or lists some of them.

Part 2: (2 points possible)

- 1 point for correct answer (e.g., 1/3) or correct probability based on answer to Part 1:
 $P = \text{number with cream siding} / \text{Total number of houses}$

AND

- 1 point for correct and complete work or explanation based on answer to Part 1.

PART II Released Items (Mathematics)

MATHEMATICS OPEN-RESPONSE ITEM D

TRAIL MIX

INGREDIENT	AMOUNT
Peanuts	$\frac{1}{3}$ lb.
Granola	$\frac{1}{2}$ lb.
Pretzels	$\frac{3}{8}$ lb.
Raisins	$\frac{1}{6}$ lb.
Chocolate Chips	$\frac{1}{12}$ lb.

D. Kordell’s class is making trail mix to take on a hiking trip. The recipe above gives the ingredients and how much is needed of each.

1. Order each fraction from the least to greatest. Explain your reasoning.
2. The recipe contains the **most** of which ingredient?
3. The recipe contains the **least** of which ingredient?

BE SURE TO LABEL YOUR RESPONSES 1, 2, AND 3.

RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM D

SCORE	DESCRIPTION
4	8 points – Response contains no incorrect work.
3	6 – 7 points.
2	3 – 5 points.
1	1 point in Part 1 with some correct work. OR Correct answer to Part 2 or Part 3. OR 2 points.
0	No understanding shown (e.g., copies chart only).
B	Blank – No Response. A score of “B” will be reported as a score “NA” (No Attempt – Zero Score).

PART II Released Items (Mathematics)

Solution

Part 1: The fractions listed from least to greatest are: $1/12$, $1/6$, $1/3$, $3/8$, $1/2$.

Work/Explanation: All fractions are changed to equivalent fractions with common denominator: i.e., $1/3 = 8/24$ $1/2 = 12/24$ $3/8 = 9/24$ $1/6 = 4/24$ $1/12 = 2/24$
Fractions are then placed in correct order, as shown above.

OR

If the numerators are the same, the fraction with the largest denominator is the smallest fraction. Student lists the following from least to greatest: $1/12$, $1/6$, $1/3$, $1/2$, and then finds where $3/8$ should be placed. Since $1/3 = 8/24$ and $3/8 = 9/24$, then $3/8 > 1/3$. Since $1/2 = 4/8$, then $1/2 > 3/8$. Therefore, the student's list of fractions from least to greatest is: $1/12$, $1/6$, $1/3$, $3/8$, $1/2$.

OR

Student finds decimal equivalent of fractions and lists them in order or other appropriate method.

Part 2: Granola is used the most.

Part 3: Chocolate chips are used the least.

Scoring (8 total points possible)

Part 1: (7 points possible)

- 5 points – 1 point for each fraction that is in the correct position listed least to greatest:

Least	→	→	→	Greatest
$1/12$	$1/6$	$1/3$	$3/8$	$1/2$
1 point				

Note: Sometimes it is evident that the fractions are listed from greatest to least—left to right—based on the answers to Parts 2 and 3 (most and least). If the student lists the fractions from greatest to least, give 1 point for each fraction in the correct position ($1/2$, $3/8$, $1/3$, $1/6$, $1/12$) then subtract 1 point. (If fractions are vertical, do not deduct.) Also, if correct procedures are used but fraction(s) are out of order due to a calculation error, score accordingly.

- 2 points for correct and complete work/procedure or explanation.

OR

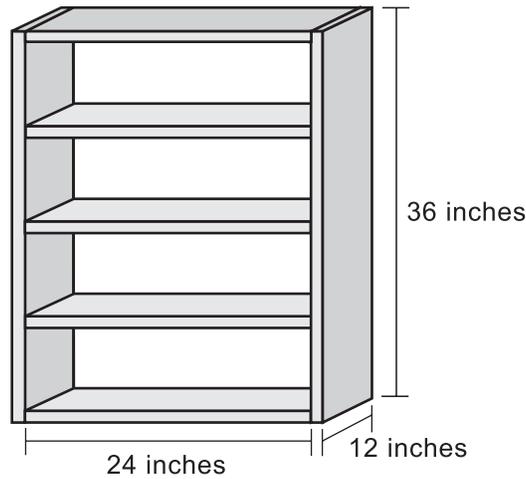
- 1 point for either of the following:
 - Incomplete but clear work or explanation, or
 - Response compares 5 pie diagrams.

Parts 2 and 3: (1 total point possible)

- 1 point for correct answers to Parts 2 and 3 (Granola and Chocolate chips).

PART II Released Items (Mathematics)

MATHEMATICS OPEN-RESPONSE ITEM E



E. Mrs. Hernandez asked Roy’s father to build a 4-shelf bookcase with a top for under \$25.00.

Dimensions	Price
One 1-foot × 10-foot board	\$9.95

- Using the chart above, how many boards will Roy’s father need to purchase to build the bookcase? Explain your reasoning using words and/or numbers.
- He already has nails, screws, and other fasteners available. Was Roy’s father able to stay within Mrs. Hernandez’s budget? Explain your reasoning using words and/or numbers.

BE SURE TO LABEL YOUR RESPONSES 1 AND 2.

RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM E

SCORE	DESCRIPTION
4	4 points – Response contains no incorrect work.
3	3 points.
2	2 points.
1	1 point or some understanding shown (e.g., total of 16 ft. only).
0	No understanding shown (e.g., 7 boards with “No” and no work or incorrect work finding cost OR “Yes” or “No” only).
B	Blank – No Response. A score of “B” will be reported as a score “NA” (No Attempt – Zero Score).

PART II Released Items (Mathematics)

Solution

Part 1: 2 (1 ft. × 10 ft.) boards are needed.

Work/Explanation: For the 4 shelves and the top you need:

$$5 (12 \text{ in.} \times 24 \text{ in.}) \text{ boards} = 12 \text{ in.} \times 120 \text{ in.} = 1 \text{ ft.} \times 10 \text{ ft.} = 1 \text{ board.}$$

For the 2 sides you need:

$$2 (12 \text{ in.} \times 36 \text{ in.}) \text{ boards} = 12 \text{ in.} \times 72 \text{ in.} = 1 \text{ ft.} \times 6 \text{ ft., so 1 (1ft.} \times 10 \text{ ft.) board is needed.}$$

OR

Equivalent work or explanation.

Part 2: Yes, he can stay within the budget.

Work/Explanation: He will spend $2 \times 9.95 = 19.90$, so he will have enough.

Scoring (4 total points possible)

Part 1: (2 points possible)

- 1 point for 2 boards.
(Note: Do not give credit for 2 if it is evident that incorrect procedures were used.)

AND

- 1 point for correct and complete procedure shown or explained.
(Note: Work might have a calculation, counting or copy error.)

Part 2: (2 points possible)

If the answer in Part 1 is 2, or incorrect due to a calculation, counting, or copy error with correct procedure used:

- 2 points for correct Y/N corresponding to answer in Part 1 and calculation of cost with all work shown in Part 2: ($2 \times 9.95 = 19.90$ or $2 @ 9.95$ is 19.90).

OR

- 1 point for either of the following:
 - Correct Y/N corresponding to answer in Part 1 but vague, incomplete, or no work/explanation finding cost in Part 2, or
 - Missing Y/N answer but has clear, correct work or explanation in Part 2.

If the answer in Part 1 is incorrect due to a procedural error:

- 1 point for either of the following:
 - Correct Y/N corresponding to answer in Part 1 and at least some correct work/explanation in Part 2, or
 - Missing Y/N answer but has clear, correct work or explanation in Part 2.

Mathematics Reference Sheet Grade 6

	Perimeter	Area	Volume
Square	$4s$	s^2	
Rectangle	$2l + 2w$	lw	
Triangle	$a + b + c$	$\frac{1}{2}bh$	
Circle	$2\pi r$	πr^2	
Rectangular Solid			$V = lwh$

$\pi \approx 3.14$

1 mile = 5,280 ft.

1 pound = 16 ounces

1 pint = 16 ounces

2 pints = 1 quart

4 quarts = 1 gallon

1 liter = 1000 milliliters

1 meter = 100 centimeters

1 decimeter = 10 centimeters

1 centimeter = 10 millimeters

1 kilometer = 1000 meters

Today Michael Jordan is a very famous basketball player, but he didn't start out that way. In the following passage, read about Michael Jordan's early experiences in basketball and how he had to learn to play the sport. After reading, answer the multiple-choice questions 1 through 8 and open-response question A.

Michael Jordan

Growing Up

By the time he was in grade nine, Michael knew he wanted to be a basketball player. He was too short to make the varsity team, so he spent hours each day practicing his jump shot.



The next year he was six inches taller, had improved his skills, and made the team. Michael became such a good player that he was invited to spend a summer at the Five-Star Basketball Camp in Pittsburgh, Pennsylvania, a school for the country's best high school players. Scouts visiting the camp were so impressed with Michael that they offered him scholarships to college. Michael accepted a basketball scholarship from the University of North Carolina at Chapel Hill (UNC).

Michael made the starting team at UNC, a rare thing for most first-year players. His finest moment that year came on March 29, 1982. With only seconds left on the clock and his team losing by two points, Michael sank a sixteen-foot jump shot. His team won the National Collegiate Athletic Association (NCAA) championship for the first time in twenty-five years.

Michael continued to impress basketball fans. He was named an All-American player, and *Sporting News* magazine selected him as the player of the year in 1983 and 1984. He also helped the U.S. team win gold medals at the 1983 Pan American games and the 1984 Summer Olympics.

Developing Skills

After the 1984 Olympics, Michael decided to become a professional basketball player. He signed on with the losing Chicago Bulls of the National Basketball Association (NBA) and became known for his wild dunk shots, dribbling skills, and shooting ability. Fans soon nicknamed his performance on the court "The Michael Jordan Air Show." Michael put the Bulls in the playoffs, and he finished his first season as the league's 1985 Rookie of the Year.

The next season Michael broke his foot and missed most of the games. But he rebounded in 1987 by becoming the second NBA player ever to score more than 3,000 points in a season. He also set a record by scoring eighteen straight points in a game against the New York Knicks.

By 1988, Michael had reached superstar status. He was the league's Most Valuable Player, the Defensive Player of the Year, and

PART II Released Items (Reading)

was the Most Valuable Player at the annual All-Star Game.

Michael and the Chicago Bulls continued to do well, but they were not able to win a championship. In 1990, they were defeated by the Detroit Pistons in the first round of the playoffs. Michael played well, but the rest of the team did not. Michael accused his teammates of not trying hard enough, while they said he wanted all the glory and would not pass to them when they had a chance to score.

The next year Michael decided to hold back his play and started setting up his teammates. The plan worked. The Bulls finished first in their division and Michael was named the league's Most Valuable Player.

In the playoffs, the Bulls steamrolled past their opponents, winning fifteen of seventeen games including the championship. Michael was named the series Most Valuable Player. "I don't know if I'll ever have this same feeling again," Michael later told reporters. "It's been a seven-year struggle for me and the city of Chicago. And we did it as a team; all season long we did it as a team."

Accomplishments

1982



Made UNC's starting lineup; led team to first NCAA championship in twenty-five years.

1983



Led U.S. team to gold medal at Pan American games; named *Sporting News* Player of the Year.

1984



Led U.S. team to gold medal at Summer Olympics; joined Chicago Bulls.

1985



Signed with Nike to promote a special line of basketball shoes called "Air Jordan"; named NBA's Rookie of the Year.

1987



Became second NBA player in history to score more than 3,000 points in a season; set a record of eighteen straight points in a game.

1988



Named NBA Most Valuable Player (MVP), Defensive Player of the Year, and Most Valuable Player at the annual All-Star Game.

1990–1991 season



Bulls win NBA championship, Michael named league MVP and playoff MVP.

PART II Released Items (Reading)

1. What did Michael Jordan do when he didn't make the varsity team in high school?
 - * A. He practiced his skills.
 - B. He went to basketball camp.
 - C. He waited until he had grown 8 more inches.
 - D. He accepted a scholarship to go to college.

2. In what year did Michael Jordan decide to become a professional basketball player?
 - A. 1982
 - B. 1983
 - * C. 1984
 - D. 1985

3. After becoming a professional basketball player, Michael Jordan played in the
 - A. Summer Olympics.
 - B. National Collegiate Athletic Association's championship game.
 - * C. National Basketball Association's playoffs.
 - D. Pan American games.

4. What does rebounded mean in this passage?
 - A. scored many points
 - B. attempted again
 - C. succeeded
 - * D. came back

5. Michael Jordan became one of only two people in NBA history to hold the record for
 - A. winning the MVP award several times.
 - * B. scoring more than 3,000 points in a season.
 - C. scoring eighteen straight points in a game.
 - D. winning the most gold medals.

6. Who won the NBA championship during the 1990–1991 season?
 - * A. the Chicago Bulls
 - B. the University of North Carolina
 - C. the Detroit Pistons
 - D. the New York Knicks

PART II Released Items (Reading)

7. Who did Michael give credit to when the Bulls won the NBA championship?

- A. himself
- B. his parents
- * C. the team
- D. the city of Chicago

8. Which of these is **not** true about Michael Jordan?

- A. He attended the University of North Carolina at Chapel Hill.
- B. He won a gold medal at the Summer Olympics.
- C. He promoted basketball shoes that were named after him.
- * D. He starred in a television show called "The Michael Jordan Air Show."

PART II Released Items (Reading)

READING OPEN-RESPONSE ITEM A

- A. In 1990, Michael Jordan and the other players on the Chicago Bulls team had a problem. In your own words, explain what that problem was and how they solved it. Use information from the passage to support your answer.

RUBRIC FOR READING OPEN-RESPONSE ITEM A

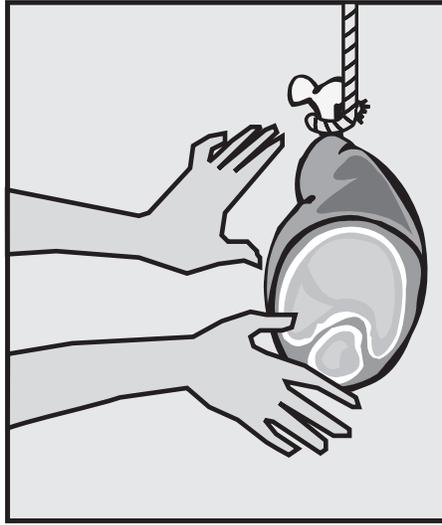
SCORE	DESCRIPTION
4	The response clearly explains that their problem was that they were not playing as a team. The response clearly explains how they solved the problem by playing together. The response includes relevant support from the passage.
3	The response generally explains what their problem was and how they solved it. The response includes some support from the passage.
2	The response provides a limited explanation of what their problem was and how they solved it with limited support from the passage. OR The response clearly explains what the problem was about only . OR The response clearly explains how they solved their problem only .
1	The response shows a minimal understanding of the passage.
0	The response is completely incorrect or irrelevant.
B	Blank – No Response. A score of “B” will be reported as a score “NA” (No Attempt – Zero Score).

Sample Response

Michael seemed to be playing for himself and thought the team was playing poorly. Michael set up plays so his teammates could score, too.

PART II Released Items (Reading)

Stories often teach us lessons by example. Read the passage and think about the lesson that the young men learn. Then answer multiple-choice questions 9 through 16 and open-response question B.



IN THE DAYS OF KING ADOBE

BY JOE HAYES

There was once an old woman who lived all alone in a tiny house at the edge of a village. She was very poor, and all she had to eat was beans and tortillas and thin cornmeal mush. Of course, she ate a few vegetables from her garden, but most of them she took into the village on market day to sell or trade for what little she needed for her simple life.

But the old woman was very thrifty, and by saving carefully—a penny a day, a penny a day—she was able to buy herself a big ham. She kept it hanging from a hook in a cool, dark closet behind the kitchen, and she only cut a thin slice from the ham on very special days—or if she was lucky enough to have company join her for a meal.

One evening a couple of young men who were traveling through the country stopped at the old woman's house and asked if they could have lodging for the night. The old woman had no extra beds, but she offered to spread a blanket on the floor for the young men to sleep on. They said that would be fine, and thanked the old woman for her kindness.

"It's nothing," the old woman told them. "I'm happy to have the company. I'll get busy and make us all a good supper."

She got out her pots and pans and then went to

the closet and cut three slices from the ham—two thick, generous slices for the travelers and a thin one for herself.

The young men were delighted to see the old woman preparing ham for their supper. Seldom were they offered such good food in their travels. But those two young men were a couple of rascals, and right away a roguish idea came into their minds. They decided to steal the ham that night while the old woman was asleep.

After they had all eaten their fill, the old woman spread out a bed for the young men on the floor. She said good night and wished them good dreams and then went into her own room to sleep.

Of course, the young men didn't go to sleep. They lay on the floor joking and talking about how nice it was going to be to have a whole ham to eat.

When they felt sure the old woman was asleep, the young men got up and crept to the closet. They took the ham down from the hook and wrapped it in a shirt. One of the young men put the ham in his traveling bag. Then the two young men lay down to sleep with smiles on their faces. They had very good dreams indeed!

PART II Released Items (Reading)

10 But the old woman hadn't gone to sleep either. In the many years of her life she had become a good judge of character, and she had noticed the rascally look in the young men's eyes. She knew she had better be on her guard. When she heard the young men getting up from their pad on the floor, she went to the door and peeked out. She saw everything the young men did.

Later that night, when the young men were sound asleep, the old woman crept from her room. She took the ham from the traveling bag and hid it under her bed. Then she wrapped an adobe brick in the shirt and put it in the traveling bag.

When the young men awoke in the morning, they were anxious to be on their way. But the old woman insisted they stay for a bite of breakfast. "It will give you strength," she told them. "You have a long day of walking ahead of you. And you may not have anything else to eat all day."

One of the young men winked at the other as he sat down at the table and said, "You're probably right, *abuelita*¹, but who knows? Last night I dreamed that today my friend and I would be eating good food all day long."

"Is that right?" the old woman replied. "Tell me more about your dream. I'm fascinated by dreams. I believe they are sometimes true."

The young man thought he'd really make fun of the old woman. He smiled at his friend and then said, "I dreamed we were sitting under a tree eating. It was a beautiful land. And the king of that country was named Hambone the First."

"Aha!" spoke up the second young man. "Now I remember that I had the same dream. And I remember that the land in which Hambone the First was king was named Travelibag."

The young men had to cover their mouths to keep from bursting out laughing. But the old woman didn't seem to notice. In fact, she seemed to be taking them very seriously.

"I had a similar dream last night myself!" she exclaimed. "I was in a land named Travelibag, and Hambone the First was king of that country. But then he was thrown out by the good people and replaced by a new king named Adobe the Great.

And for some people, that meant a time of great hunger had begun."

"Isn't that interesting," the young men said, biting their lips to keep from laughing. "Oh, well, it was just a dream." They hurried to finish their breakfast and then went on their way, laughing at the old woman's foolishness.

All morning long the two rascals joked about the old woman as they traveled down the road. As midday approached, they began to grow tired. They sat down under a shady tree to rest.

"Well, now," said the first young man as he leaned back and closed his eyes. "Don't you think it's time for dreams to come true? Here we are sitting under a tree, just as I dreamed. Open up the land of Travelibag. My stomach tells me I need to visit the king of that land."

"By all means," said the other. "Let's see how things are going with our old friend Hambone the First."

The young man opened his bag and pulled out the bundle wrapped in his shirt. Chuckling to himself he slowly unwrapped the shirt. Suddenly the smile disappeared from the young man's face. "Oh, no," he gasped. "The old woman knew more about dreams than we thought."

"What do you mean?" asked the other.

"Well," he said, "she told us Hambone the First had been thrown out, didn't she?"

"Yes."

"And do you remember who was put in his place?"

The young man laughed. "Adobe the Great! Where do you suppose she came up with a name like that?"

"Probably right here," said his friend. "Look."

The first young man opened his eyes. "I see what you mean," he groaned. "And I see what the old woman meant about the time of great hunger beginning. I'm starved!"

After several hungry days the two men met another kind old woman who fed them a good meal. This time they didn't even think about trying to play any tricks.

¹*abuelita*: term of affection for *abuela* which is Spanish for "grandmother"

PART II Released Items (Reading)

9. How are the two men and the first old woman in this passage similar?
- A. They are always kind to strangers.
 - * B. They can be deceptive and mischievous.
 - C. They have traveled a lot in their lifetime.
 - D. They are concerned about spending too much money.
10. In the context of this passage, what does the word guard mean in paragraph 10?
- A. to shield
 - B. to protect
 - * C. to be alert
 - D. to be secure
11. Which of the following indicates that the passage might involve Hispanic culture and history?
- A. “. . . and she only cut a thin slice from the ham on very special days—”
 - B. “. . . a couple of young men . . . stopped at the old woman’s house and asked if they could have lodging for the night.”
 - * C. “You’re probably right, *abuelita*, but who knows?”
 - D. “And the king of the country was named Hambone the First.”
12. What does the first young man mean when he says, “My stomach tells me I need to visit the king of that land”?
- A. He wants to meet important people.
 - B. He is sick and tired of traveling by foot.
 - C. He is eager to go to the next stop on their journey.
 - * D. He is hungry and wants to eat the ham that they took.
13. What does it mean in the passage when it says, “a roguish idea came into their minds”?
- A. It was an idea that seemed impossible.
 - * B. The men were thinking something dishonest.
 - C. It was an idea that would benefit the old woman.
 - D. The idea would have no effect on the rest of their journey.
14. What is the **main** lesson the young men learn in the passage?
- A. that dreams actually can come true
 - * B. that deception does not always achieve positive results
 - C. that getting a free meal from old women is harder than they thought
 - D. that people should be careful when telling others about their dreams

PART II Released Items (Reading)

15. The author describes the old woman as thrifty. Which of the following details from the passage **best** supports this description?

- * A. “. . . and she only cut a thin slice from the ham on very special days—”
- B. “I’m happy to have the company. I’ll get busy and make us all a good supper.”
- C. “. . . and then went to the closet and cut three slices from the ham—two thick, generous slices for the travelers . . .”
- D. “. . . the old woman spread out a bed for the young men on the floor.”

16. In the text, why is the word *abuelita* given a number?

- A. because it is used inside quotation marks
- * B. because it is footnoted at the bottom of the text
- C. so that the reader will know not to read it aloud
- D. so that the reader will know when the young man is speaking

PART II Released Items (Reading)

READING OPEN-RESPONSE ITEM B

- B.** Give the sequence of events involved in the old woman protecting her property when she realized the two young men were rascals. Make sure you include details from the passage to support your answer.

RUBRIC FOR READING OPEN-RESPONSE ITEM B

SCORE	DESCRIPTION
4	The response provides an accurate and thorough explanation of her actions in the correct sequence. The response uses multiple specific details from the story that describe her actions.
3	The response provides a partial or general explanation of her actions in the correct sequence. The response includes general details from the story describing her actions.
2	The response provides a limited explanation of her actions and presents most of them in correct sequence. The response includes limited or inappropriate details from the story.
1	The response provides a minimal explanation of at least one of her actions.
0	The response is completely incorrect or irrelevant.
B	Blank – No Response. A score of “B” will be reported as a score “NA” (No Attempt – Zero Score).

Sample Response

She stayed awake. She heard the young men get up and watched them put her ham in their traveling bag. The old woman waited until they were asleep, and then she crept from her room and took the ham back. Then she put an adobe brick in their traveling bag.

Sequence of Events:

1. She was on guard.
OR
She stayed awake/alert.
OR
She heard them.
2. She watched them steal the ham.
OR
She saw what they did. (“They stole the ham” does not count. She has to witness them stealing it.)
3. She waited until they were asleep.
4. She crept from her room.
OR
She goes to the bag.
5. She took the ham back.
6. She hid the ham under her bed.
7. She replaced the ham with a brick/adobe.
OR
She put a brick/adobe in the traveling bag.

Gardening can be fun and easy, if you follow some important steps. Read this passage about how to plan a garden, then answer multiple-choice questions 17 through 24 and open-response question C.

The Garden: From Planning to Harvesting

by Steven Caney



Preparing the soil

To some, soil is only dirt, but soil suitable for gardening is a natural combination of minerals from rocks, decomposed organic materials, tiny plants and animals, water, and air. Soil is built up gradually, but it may take from over one hundred to nearly one thousand years to add just one inch of new soil to the land.

Your garden crop will be as good as the soil it grows in. Some companies sell soil test kits that tell you exactly what fertilizers and other conditioners your soil may need. But much can be told just by looking at and feeling the soil. If the soil is hard and doesn't break up easily it probably contains a lot of clay, and that is not good for garden plants. If your soil is mostly clay, add peat moss, manure or compost, and work it well into the soil with a garden rake or hoe. Good garden soil is usually a dark, rich brown color, loose, easy to crumble, and slightly moist.

Most soils will benefit from a treatment of lime worked in well with a spade or rake. However, if you live in California or another far-western state, your soil will probably benefit more from a similar treatment of sulfur.

Prepare the soil for planting by spading it to a depth of about one foot (30 cm). Break up the loose clods, remove large stones and rocks, and rake the top so it is smooth and level.

Planting the seeds

Use a rake handle to draw in the soil and mark the location of your plantings according to your plan. Then, still using the rake handle, make shallow and straight furrows or grooves in the soil. Sow the seeds of each plant variety according to the instructions on the seed packet, and cover the seeds with a thin layer of soil. Tap the soil firm but don't pack it down hard or the seed sprouts may have difficulty breaking through. Warning: Most seeds that don't come up have been planted too deep.

Caring for the garden

Left alone in good conditions, most seeds will germinate and grow to mature, fruitful plants. But growing conditions are not always ideal and you should periodically perform certain garden maintenance tasks:

1. Pull up any weeds that interfere with the growth of your plants or rob them of soil nutrients.
2. Cultivate (loosen and break up) the soil around the plants so it will readily accept water.
3. Fertilize the garden soil once or twice during the growing season using an all-purpose garden fertilizer.

PART II Released Items (Reading)

4. If the weather becomes dry and the soil shows signs of drying out, water the garden once a week or more.
5. Some gardeners like to mulch or cover the garden soil to both smother the garden weeds and keep the ground moist. An inch or two layer of grass clippings, straw, hay, peat moss, or old leaves, will make a good garden mulch.

Harvest

This is the big payoff for all your efforts and patience, and by far the easiest part of gardening. Pick off any vegetables as soon as they are ripe, and for best flavor and nutritional content, eat your harvest as soon as possible. If you intend to freeze or can some of your vegetables, process the food as soon as possible.

Planning the Garden

Before digging the first spade of dirt, plan the garden. Decide on the size and location, then make a scale drawing, showing where you intend to plant what. A kitchen garden of vegetables, fruits, and herbs requires plenty of sunlight, soil and good water drainage, and a minimum of competition from the roots of nearby shrubs and trees. Take care in choosing a perfect location.

The following chart will help in planning your garden, but always follow the specific directions on the seed packet for information about your particular region of the country and other helpful planting hints.

Vegetable	Days to Germinate	Days to Harvest	Helpful Hints
CARROTS	7 to 14	65 to 75	
CUCUMBER	7 to 14	50 to 65	grow outside the garden on a fence to conserve space
LEAF LETTUCE	7 to 14	40 to 50	
MELONS	7 to 14	75 to 120	has long vines - grow outside the garden in a sunny area
ONION	10 to 21	95 to 120	plant in loose, sandy soil
PEPPERS	10 to 21	60 to 80	seeds will germinate only in warm soil
POLE BEANS	7 to 14	65 to 100	pole or fence is needed for support
PUMPKIN	7 to 14	95 to 120	has long vines - grow outside the garden
RADISH	7 to 14	25 to 60	
SUMMER SQUASH	7 to 14	50 to 60	
SWEET CORN	7 to 14	65 to 90	grow in "blocks" of short rows for good pollination between plants
TOMATO	7 to 14	50 to 85	seeds will germinate only in warm soil

PART II Released Items (Reading)

17. What does the word germinate mean?
- A. fruit
 - B. stem
 - C. decay
 - * D. sprout
18. The quote, “. . . rake the top so that it is smooth and level” is a supporting detail for what **main** idea?
- A. Remove rocks from soil.
 - B. Fertilizer is important to soil.
 - * C. Soil needs to be prepared before planting.
 - D. Pull any weeds that interfere with growth.
19. What can be done to help the soil absorb water?
- * A. The soil can be cultivated.
 - B. Fertilizer can be added to the soil.
 - C. Manure can be mixed with the soil.
 - D. The soil can be treated with chemicals.
20. Why would a gardener whose seeds did not sprout read this passage?
- A. pleasure
 - B. amusement
 - * C. problem-solving
 - D. finding a location
21. According to the chart, which vegetables need to be planted outside the garden?
- A. carrots, cucumber, and leaf lettuce
 - * B. cucumbers, pumpkins, and melons
 - C. melons, peppers, and summer squash
 - D. sweet corn, pumpkins, and pole beans
22. Which of these comprehension strategies should you use to get the **most** information from this passage?
- A. Predict what will happen in your garden.
 - B. Skim the passage for general information.
 - C. Read to decide which vegetables to plant first.
 - * D. Analyze the steps in the passage and follow the instructions.
23. You have a small space to plant your garden, and your growing season is long (120 days). According to the chart, which two vegetables could you plant in the same space one right after the other?
- A. onion and pole beans
 - * B. radish and leaf lettuce
 - C. sweet corn and melons
 - D. pumpkins and cucumbers
24. You might recommend this passage to a friend who wants to know which of the following?
- A. how to cook with garden vegetables
 - * B. how to prepare and care for a garden
 - C. how to plan the size and shape of garden
 - D. how to plan a garden according to space available

PART II Released Items (Reading)

READING OPEN-RESPONSE ITEM C

- C. Name four considerations to keep in mind when planning where your garden should be. Use information from the passage to support your answer.

RUBRIC FOR READING OPEN-RESPONSE ITEM C

SCORE	DESCRIPTION
4	The response has four clear and valid considerations mentioned in the passage.
3	The response has three clear and valid considerations mentioned in the passage.
2	The response has two clear and valid considerations mentioned in the passage.
1	The response has one clear and valid consideration mentioned in the passage.
0	The response is completely incorrect or irrelevant.
B	Blank – No Response. A score of “B” will be reported as a score “NA” (No Attempt – Zero Score).

Sample Response

1. The space should get lots of sunlight.
2. The area should allow excess water to drain.
3. The ground should not have lots of roots from trees or shrubs.
4. The ground should not have large rocks.

PART II Released Items (Reading)

Acknowledgments

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PART II Released Items (Writing)

TOPIC #1

Your school is sponsoring an essay contest. You have decided to enter. The topic that you must write about is:

What person, from the past or present, would you most like to meet and why?

Before you begin to write, think about the person that you would most like to meet. Consider reasons why it is important for you to meet this person. Think about what you will learn from this meeting.

Now write your essay about the person, from the past or present, that you would most like to meet. Give specific reasons for your choice and explain why meeting this person is important to you. Be sure to give enough detail and to present your ideas clearly.

TOPIC #2

Your teacher has asked you to write an essay about your favorite memory.

Before you begin to write, remember when something good happened to you. Tell what happened and explain why you still remember it.

Now write an essay about your favorite memory and be sure to give reasons why it is your favorite. Give enough detail so that your teacher will understand.

WRITER'S CHECKLIST

- | | |
|---|---|
| <ol style="list-style-type: none">1. Look at the ideas in your response.<ul style="list-style-type: none">— Have you focused on one main idea?— Have you used enough detail to explain yourself?— Have you put your thoughts in order?— Can others understand what you are saying?2. Think about what you want others to know and feel after reading your paper.<ul style="list-style-type: none">— Will others understand how you think or feel about an idea?— Will others feel angry, sad, happy, surprised, or some other way about your response? (Hint: Make your reader feel like you do about your paper's subject.) | <ul style="list-style-type: none">— Do you have sentences of different lengths? (Hint: Be sure you have a variety of sentence lengths.)— Are your sentences alike? (Hint: Use different kinds of sentences.) <ol style="list-style-type: none">3. Look at the words you have used.<ul style="list-style-type: none">— Have you described things, places, and people the way they are? (Hint: Use enough detail.)— Are you the same person all the way through your paper? (Hint: Check your verbs and pronouns.)— Have you used the right words in the right places?4. Look at your handwriting.<ul style="list-style-type: none">— Can others read your handwriting with no trouble? |
|---|---|

PART II Released Items (Writing)

Domain Scoring Rubric

Content (C)

The Content domain includes the focusing, structuring, and elaborating that a writer does to construct an effective message for a reader. It is the creation of a product, the building of a writing intended to be read. The writer crafts his/her message for the reader by focusing on a central idea, providing elaboration of the central idea, and delivering the central idea and its elaboration in an organized text. Features are:

- Central idea
- Elaboration
- Unity
- Organization

Style (S)

The Style domain comprises those features that show the writer purposefully shaping and controlling language to affect readers. This domain focuses on the vividness, specificity, and rhythm of the piece and the writer's attitude and presence. Features are:

- Selected vocabulary
- Selected information
- Sentence variety
- Tone
- Voice

Sentence Formation (F)

The Sentence Formation domain reflects the writer's ability to form competent, appropriately mature sentences to express his/her thoughts. Features are:

- Completeness
- Absence of fused sentences
- Expansion through standard coordination and modifiers
- Embedding through standard subordination and modifiers
- Standard word order

Usage (U)

The Usage domain comprises the writer's use of word-level features that cause written language to be acceptable and effective for standard discourse. Features are:

- Standard inflections
- Agreement
- Word meaning
- Conventions

Mechanics (M)

The Mechanics domain includes the system of symbols and cuing devices a writer uses to help readers make meaning. Features are:

- Capitalization
- Punctuation
- Formatting
- Spelling

Scoring Scale

Each domain is scored independently using the following scale:

4 = The writer demonstrates consistent, though not necessarily perfect, control* of almost all of the domain's features.

3 = The writer demonstrates reasonable, but not consistent, control* of most of the domain's features, indicating some weakness in the domain.

2 = The writer demonstrates enough inconsistent control* of several features to indicate significant weakness in the domain.

1 = The writer demonstrates little or no control* of most of the domain's features.

The application of the scale, using actual student writing, is done with the assistance of a committee of Arkansas teachers, language arts supervisors, and representatives of the Arkansas Department of Education.

* Control: The ability to use a given feature of written language effectively at appropriate grade level. A paper receives a higher score to the extent that it demonstrates control of the features in each domain.

PART III Curriculum Frameworks

The Arkansas Mathematics Framework*

Strands	Content Standards	Student Learning Expectations
1. NUMBER SENSE, PROPERTIES AND OPERATIONS (NPO)	1. The student will communicate an understanding of the properties of numbers and operations (add, subtract, multiply, divide).	<ol style="list-style-type: none"> 1. Identify numerical patterns (e.g., prime numbers, squares, exponents) and verify results (e.g., by continuing the pattern). 2. Expand number sense through the use of mental computation, calculators/technology, and written and verbal communication (e.g., powers of ten, factoring, greatest common factors, least common multiples). 3. Represent numbers and operations in a variety of equivalent forms (including models, tree diagrams, and symbols). 4. Consistently demonstrate competence with rational number computations (add, subtract, multiply, divide) with and without manipulatives and technology. 5. Communicate knowledge of elementary number theory concepts (e.g., primes, factors, multiples, divisibility rules) through classroom interaction and written responses (e.g., tests, journals).
2. GEOMETRY AND SPATIAL SENSE (GS)	<ol style="list-style-type: none"> 1. The student will demonstrate, construct, communicate, and apply the properties of geometric shapes and spatial sense to connect geometry with problem-solving situations. 2. The student will solve problems that connect geometric applications to other topics in mathematics and other fields. 	<ol style="list-style-type: none"> 1. Identify, draw, classify, and compare geometric figures and their relationships in one, two, and three dimensions (from points to polyhedra) with physical materials. 2. Apply geometric properties and formulas (e.g., triangles have 180 degrees, opposite sides of rectangles are equal, Pythagorean theorem) to solve problems with and without appropriate technologies. 3. Make predictions based on transformations of geometric figures in problem-solving situations (e.g., compare two pictures and determine what changes were made – i.e., flip, slide, rotation). 5. Visualize, model, and represent three-dimensional objects (e.g., cube models, base plans/nets, building plans, isometric dot paper sketches) to develop and implement problem-solving strategies and verify solutions. <hr style="border: 0.5px dashed black;"/> <ol style="list-style-type: none"> 1. Construct geometric models to solve problems (e.g., comparing bridge supports: cylindrical vs. rectangular). 2. Investigate geometric properties and use them to describe and explain situations in society and nature (e.g., why doors are rectangular, why honeycombs are hexagonal, why trusses are triangular).

*The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

PART III Curriculum Frameworks

The Arkansas Mathematics Framework* (continued)

Strands	Content Standards	Student Learning Expectations
3. MEASUREMENT (M)	1. The student will use measurement attributes (length, weight, mass, area, volume, time, money, temperature, scale, and angle) to describe and compare mathematical and real-world objects.	1. Use estimation to check the reasonableness of measurements obtained from use of various instruments (including angle measures). 3. Convert from one measurement to another within the same system (customary or metric).
	2. The student will demonstrate the appropriate use of measuring instruments.	1. Select appropriate units and tools (metric, customary, and non-standard) to measure to the required degree of accuracy.
	3. The student will apply measurement concepts to solve problems inside and outside the field of mathematics.	3. Construct scale drawings (using various tools) and/or build 3-D models to represent real-world problems and situations.
4. DATA ANALYSIS, STATISTICS AND PROBABILITY (DSP)	1. The student will perform the steps that comprise data analysis, from gathering information to communicating results.	1. Actively and systematically collect, organize, and describe data using technology when appropriate. 2. Construct, read, and interpret tables, charts and graphs (including stem-and-leaf, histogram, bar graph, pie graph, box and whiskers, line graph, scatter plots) with and without technology.
	2. The student will use probability models to perform experiments and simulations.	1. Conduct experiments or simulations, with and without technology, to model situations and construct sample spaces. 2. Make predictions based on experimental and theoretical probabilities. 4. Interpret experimental and theoretical probabilities to determine whether outcomes are equally likely or biased.
	3. The student will apply probability and statistical concepts in problem-solving and decision-making situations.	2. Make inferences and convincing arguments based on statistics with and without technology.
5. PATTERNS, ALGEBRA AND FUNCTIONS (PAF)	1. The student will use the language/symbols of algebra to represent patterns and functions.	1. Represent arithmetic as algebra (change $25 = _ + 13$ to $25 = m + 13$). 3. Analyze and represent (through calculator use) situations and number patterns with tables, graphs, and equations (e.g., identifying linear, exponential, and quadratic patterns).
	2. The student will use algebraic concepts to model, to solve, and to test solutions of mathematical and real-world problems.	1. Conduct informal investigations (with technology) for analyzing, representing, interpreting, and generalizing functional relationships (e.g., distance and time) to develop explanations or predictions about outcomes of actual situations.

*The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

PART III Curriculum Frameworks

The Arkansas Language Arts Framework—Reading: Strand 2*

Content Standards	Student Learning Expectations
<p>1. Students will comprehend, evaluate, and respond to works of literature and other kinds of writing, which reflect their own cultures and developing viewpoints, as well as those of others.</p>	<p>2. Analyze related and implied main ideas and supportive details. 3. Analyze text using patterns of organization, such as story elements, cause and effect, comparison and contrast. 4. Analyze literature for purposes, ideas, and style of author. 6. Read and follow directions. 7. Apply syntactic, semantic, and phonetic cues to decode and construct meaning from print. 8. Employ background knowledge to aid in reading and writing, comprehension, problem-solving strategies, and critical thinking. 9. Analyze features and organization of the text, (e.g., bold type, glossary). 11. Apply literal and inferential comprehension strategies to analyze a variety of genres from diverse cultures and time periods. 12. Establish purpose for reading. 14. Expand content-specific and personal vocabularies in reading. 15. Employ comprehension strategies, such as prediction, skimming, and sequencing.</p>
<p>2. Students will demonstrate a willingness to use reading to continue to learn, to communicate, and to solve problems independently.</p>	<p>1. Read a variety of materials for a variety of purposes. 6. Use library and reference skills.</p>

*The Content Standards and Student Learning Expectations listed are those that specifically relate to the released test items in this booklet.

PART IV Item Correlation with Curriculum Frameworks

Released Items for Mathematics*

Strands	Content Standards
1. NUMBER SENSE, PROPERTIES AND OPERATIONS (NPO)	1. The student will communicate an understanding of the properties of numbers and operations (add, subtract, multiply, divide).
2. GEOMETRY AND SPATIAL SENSE (GS)	1. The student will demonstrate, construct, communicate, and apply the properties of geometric shapes and spatial sense to connect geometry with problem-solving situations. 2. The student will solve problems that connect geometric applications to other topics in mathematics and other fields.
3. MEASUREMENT (M)	1. The student will use measurement attributes (length, weight, mass, area, volume, time, money, temperature, scale, and angle) to describe and compare mathematical and real-world objects. 2. The student will demonstrate the appropriate use of measuring instruments. 3. The student will apply measurement concepts to solve problems inside and outside the field of mathematics.
4. DATA ANALYSIS, STATISTICS AND PROBABILITY (DSP)	1. The student will perform the steps that comprise data analysis, from gathering information to communicating results. 2. The student will use probability models to perform experiments and simulations. 3. The student will apply probability and statistical concepts in problem-solving and decision-making situations.
5. PATTERNS, ALGEBRA AND FUNCTIONS (PAF)	1. The student will use the language/symbols of algebra to represent patterns and functions. 2. The student will use algebraic concepts to model, to solve, and to test solutions of mathematical and real-world problems.

Item	Strand	Content Standard	Student Learning Expectation
1	GS	2	1
2	PAF	1	1
3	NPO	1	5
4	PAF	2	1
5	M	1	1
6	DSP	2	4
7	GS	1	3
8	NPO	1	2
9	DSP	1	1
10	M	2	1
11	PAF	1	1
12	GS	1	2
13	DSP	1	2
14	NPO	1	1
15	GS	2	2
16	M	2	1
17	NPO	1	3
18	PAF	1	3
19	DSP	1	1
20	M	1	3
21	PAF	2	1
22	GS	1	3
23	NPO	1	1

Item	Strand	Content Standard	Student Learning Expectation
24	M	2	1
25	DSP	2	2
26	PAF	1	1
27	GS	1	5
28	NPO	1	3
29	M	1	3
30	DSP	3	2
31	PAF	1	3
32	NPO	1	2
33	M	2	1
34	GS	1	1
35	DSP	1	2
36	M	3	3
37	PAF	1	3
38	NPO	1	4
39	GS	2	1
40	DSP	1	2
A	GS	1	1
B	PAF	2	1
C	DSP	2	1
D	NPO	1	5
E	M	1	3

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed for the Mathematics and Reading items.

PART IV Item Correlation with Curriculum Frameworks

Released Items for Reading*

Content Standard for Strand 2

1. Students will comprehend, evaluate, and respond to works of literature and other kinds of writing, which reflect their own cultures and developing viewpoints, as well as those of others.
2. Students will demonstrate a willingness to use reading to continue to learn, to communicate, and to solve problems independently.

Item	Content Standard for Strand 2	Student Learning Expectation	Passage Type
1	1	2	Content
2	1	2	Content
3	1	2	Content
4	1	14	Content
5	1	2	Content
6	1	2	Content
7	1	2	Content
8	1	2	Content
A	1	8	Content
9	1	3	Literary
10	1	7	Literary
11	1	11	Literary
12	1	8	Literary
13	1	7	Literary
14	1	4	Literary
15	1	15	Literary
16	1	9	Literary
B	1	15	Literary

Item	Content Standard for Strand 2	Student Learning Expectation	Passage Type
17	1	14	Practical
18	1	2	Practical
19	1	6	Practical
20	2	1	Practical
21	2	6	Practical
22	1	15	Practical
23	1	9	Practical
24	1	12	Practical
C	1	15	Practical

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed for the Mathematics and Reading items.

ACTAAP

Arkansas Comprehensive Testing, Assessment and Accountability Program

DEVELOPED FOR THE ARKANSAS DEPARTMENT OF EDUCATION, LITTLE ROCK, AR 72201