ACTAAP

Arkansas Comprehensive Testing, Assessment, and Accountability Program

Released Item Booklet

Arkansas Augmented Benchmark Examination

APRIL 2009 ADMINISTRATION

GRADE

8

Arkansas Department of Education

AR00000348

Table of Contents–2009 Augmented Benchmark Grade 8

PART I Overview—2009 Augmented Benchmark Grade 8

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 35, which requires the State Board of Education to develop a comprehensive testing program that includes assessment of the challenging academic content standards defined by the Arkansas Curriculum Frameworks.

As part of this program, all Grade 8 students in Arkansas public schools participated in the *Grade 8 Augmented Benchmark Examination* in April 2009.

This *Released Item Booklet for the Grade 8 Augmented Benchmark Examination* contains test questions or items that were asked of students during the April 2009 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. **Please make note that only 50% of the 2009 criterion-referenced test items are released in this booklet.**

Students were given approximately two and a half hours each day to complete assigned test sessions during the four days of testing in April 2009. Students were permitted to use a calculator for the Mathematics items (both multiple choice and open response), with the exception of questions 1–4 in this *Released Item Booklet*. 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 12 of this booklet.) All of the Mathematics, Reading, and Writing multiple-choice items within this booklet have the correct response marked with an answer hand. The open-response questions for Mathematics and Reading and the prompt 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 Arkansas *English 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.

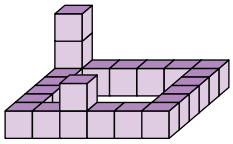
The development of the *Grade 8 Augmented Benchmark Examination* was based on the Arkansas Curriculum Frameworks. These frameworks have common, distinct levels: *Strands*, which are broad concepts, *Content Standards* within each Strand, and *Student Learning Expectations* within each Content Standard. Abridged versions of the Arkansas *Mathematics Curriculum Framework,* Arkansas *English Language Arts Curriculum Framework—Reading Strand*, and Arkansas *English Language Arts Curriculum Framework—Writing Strand* 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 III of the *Released Item Booklet* also contains a tabular listing of both released and non-released items, aligned to 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 *Grade 8 Augmented Benchmark Examination* were developed in close association with the Arkansas educational community. Arkansas teachers participated as members of Content Advisory Committees for each subject area, providing routine feedback and recommendations for all items. Part III of the *Released Item Booklet* provides Arkansas educators with specific information on how the *Grade 8 Augmented Benchmark Examination* items align or correlate with the Arkansas Curriculum Frameworks to provide models for classroom instruction.

CALCULATOR NOT PERMITTED—ITEMS 1–4

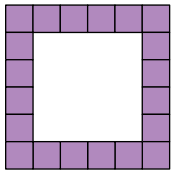
1

Below is a picture of a model made of cubes.

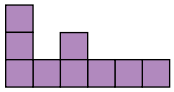


Which of the following most accurately shows the top view of this model?

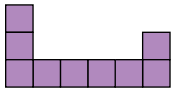
☞ **A**



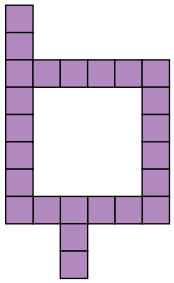
B



C



D



2

The diagonal of a rectangle has a length of $\sqrt{79}$. Between which two integers is the value $\sqrt{79}$?

A 7 and 8
☞ **B** 8 and 9
C 39 and 40
D 78 and 80

3

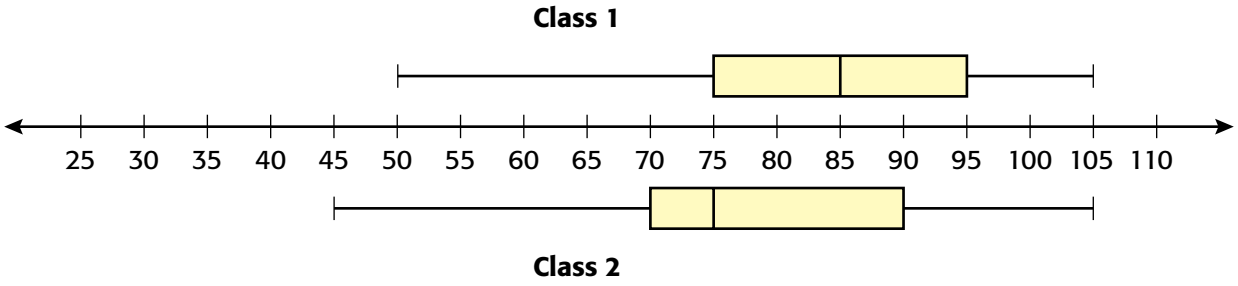
What is the greatest common factor (GCF) of the two terms below?

$3x^2y$ and $12xy^2$

A $3x^2y^2$
B $12xy$
☞ **C** $3xy$
D $12x^2y^2$

4

Mr. Klein gave the same quiz to two mathematics classes he taught. The box-and-whisker plots below were created using the quiz scores the students earned in each class.



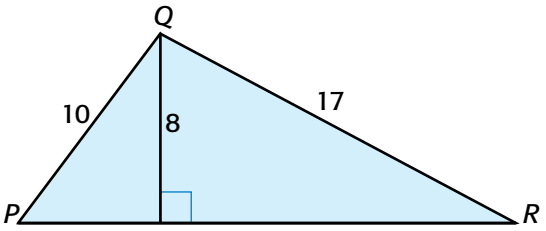
If Mr. Klein decided that each student needed to score 75 points on this quiz to pass, according to the plots, what percent of each class would pass the quiz?

A 50% of Class 1 and 50% of Class 2
B 50% of Class 1 and 75% of Class 2
☞ **C** 75% of Class 1 and 50% of Class 2
D 75% of Class 1 and 75% of Class 2

CALCULATOR PERMITTED—ITEMS 5–10 and A–B

5

The diagram of ΔPQR below shows the lengths of two sides and an altitude.

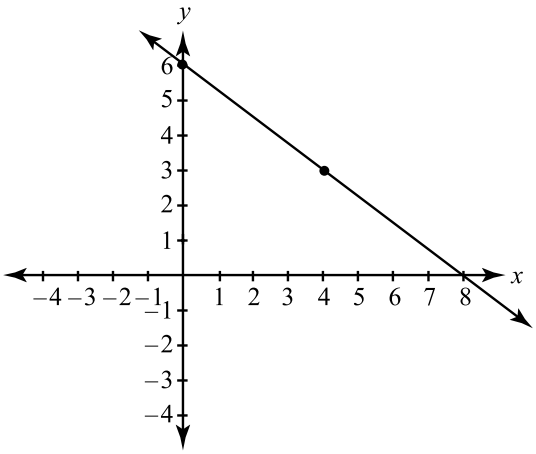


What is the length of side $\overline{PR}$?

A 19 units
B 21 units
C 27 units
D 35 units

6

What is the equation of the line graphed below?



A $y = \frac{3}{4}x + 6$

B $y = -\frac{3}{4}x + 6$

C $y = -\frac{4}{3}x + 6$

D $y = \frac{4}{3}x + (-6)$

7

Brian has a box filled with different-colored markers that are the same size and shape. Below is a list of each color of marker and the number of each in the box.

- Red - 3
- Purple - 2
- Green - 2
- Black - 2
- Yellow - 2
- Orange - 3

Brian will randomly choose 1 marker, record the color, and not put the marker back.

If Brian does this two times, what is the probability that both markers will be black?

A $\frac{1}{49}$

B $\frac{1}{72}$

☞ **C** $\frac{1}{91}$

D $\frac{1}{98}$

8

The volume of a right square pyramid is 50 cubic inches. If the height of this pyramid is 6 inches, what is the length of one side of its base?

A $4\frac{1}{4}$ inches

☞ **B** 5 inches

C 8 inches

D $12\frac{1}{2}$ inches

9

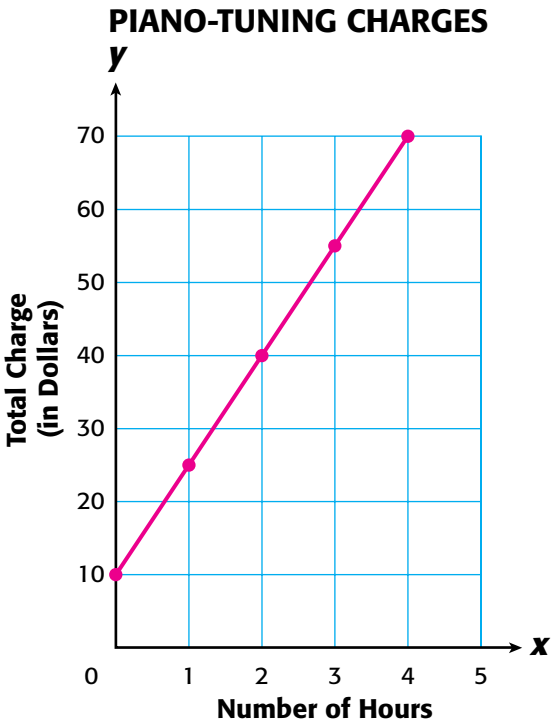
The scale on Mark's map is 0.5 inch represents 8 miles. The route from Mark's house to his friend's house is 3.25 inches on his map.

What is the actual distance of Mark's route?

A 11.75 miles
B 13.00 miles
C 20.31 miles
☞ **D** 52.00 miles

10

Mr. Lehman is a piano tuner. He charges his clients a fixed amount for a house call plus his labor, which is based on an hourly rate. The graph below shows how much Mr. Lehman charges as a function of the time required to tune a piano.



Which of the following best represents Mr. Lehman's hourly rate for labor?

A $10
☞ **B** $15
C $20
D $25

MATHEMATICS OPEN-RESPONSE ITEM A

A

Freda has a bag of 3 tennis balls that are all the same size and shape. Each tennis ball is a different color: orange, yellow, or green. Freda will randomly pick 1 tennis ball to play tennis and will not put it back in the bag. She will do this 3 times.

1. List all the possible outcomes for the order in which Freda could choose the tennis balls. You can use an organized list, tree diagram, or logic grid to show all the possibilities.
2. What is the probability that Freda will pick the yellow tennis ball first? Show your work or explain how you got your answer.
3. What is the probability that Freda will pick the green tennis ball before the orange tennis ball? Show your work or explain how you got your answer.

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

RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM A

SCORE	DESCRIPTION
4	The student earns 4 points. The response contains no incorrect work.
3	The student earns 3–3 $\frac{1}{2}$ points.
2	The student earns 2–2 $\frac{1}{2}$ points.
1	The student earns $\frac{1}{2}$–1 $\frac{1}{2}$ points, or some minimal understanding shown.
0	The student earns 0 points. No understanding is shown.
B	Blank–No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

Solution and Scoring

Part	Points
1	**2 Points Possible** 2 points: 6 correct outcomes listed Give credit for the following or equivalent: • Yellow, Orange, Green Yellow, Green, Orange Orange, Yellow, Green Orange, Green, Yellow Green, Yellow, Orange Green, Orange, Yellow **OR** 1 point: 3–5 of the 6 possible outcomes or The 6 possible outcomes plus more or An incomplete tree diagram that indicates the 6 possible outcomes
2	**1 Point Possible** 1/2 point: Correct answer: 1/3 or equivalent (1 out of 3, 1:3, $33.\overline{3}\%$) **AND** 1/2 point: Correct and complete explanation of how answer was determined Give credit for the following or equivalent: • There are 6 possible outcomes. Yellow can be picked first 2 times. Therefore the probability that Freda will pick the yellow ball first is 2/6 = 1/3. • There are only 3 balls. The probability of picking any one ball first is 1/3.
3	**1 Point Possible** 1/2 point: Correct answer: 1/2 or equivalent (1 out of 2, 1:2, 50%) **AND** 1/2 point: Correct and complete explanation of how answer was determined Give credit for the following or equivalent: • There are 6 possible outcomes. Green can be picked before orange 3 times. Therefore the probability that Freda will pick green before orange is 3/6 = 1/2. • Because 3 times green was before orange out of 6. • Indicated the yellow ball from Part 2 was excluded leaving only two balls.

MATHEMATICS OPEN-RESPONSE ITEM B

B

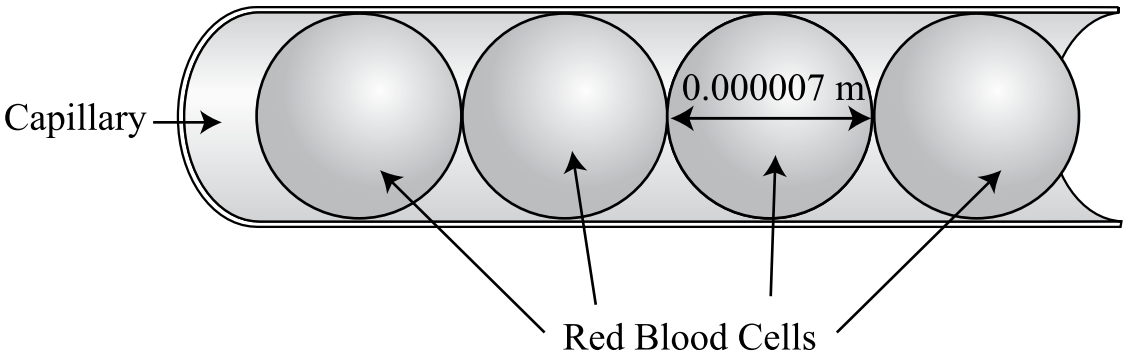
The human body is composed of many different types of cells. White blood cells are responsible for fighting infections in the body, which are caused by bacteria and viruses. The typical diameters of an example of each are shown in the table below.

Type of Cell	Typical Diameter
white blood cell	1.1×10^{-5} meters
streptococcus bacteria colony	0.001 meters
influenza virus	0.0001×10^{-3} meters

1. Change the diameters in the table above to correct scientific notation, if necessary. Label each scientific notation diameter with the first letter of its corresponding cell type.

2. Which cell in the table has the largest diameter, and which cell has the smallest diameter? Show all your work and/or explain your answer.

Red blood cells travel through the body via veins, arteries, and capillaries. Capillaries are so small that red blood cells must travel single file through them, as shown below.



3. **Approximately** how many red blood cells fit in a section of capillary that is 0.0049 meters long? Show all your work and/or explain your answer.

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

RUBRIC FOR MATHEMATICS OPEN-RESPONSE ITEM B

SCORE	DESCRIPTION
4	The student earns 6 points. The response contains no incorrect work.
3	The student earns 4–5 points.
2	The student earns 3 points, or the student earns 2 points if points are awarded in different parts.
1	The student earns 2 points if points are awarded in the same part, or the student earns 1 point, or some minimal understanding shown.
0	The student earns 0 points. No understanding is shown.
B	Blank—No Response. A score of "B" will be reported as "NA." (No attempt to answer the item. Score of "0" assigned for the item.)

Solution and Scoring

Part	Points
1	**2 Points Possible** 2 points: Give credit for the following or equivalent: Correct scientific notations with labels (W, S, I) or other identifying label Ex: **W: 1.1×10^{-5}** **S: 1.0×10^{-3}** **I: 1.0×10^{-7}** Note: "meters" is required at the "4" level **OR** 1 point: Give credit for the following: • 3 correct answers without identification or • 2 out of 3 correct answers with identification
2	**2 Points Possible** 2 points: 2 correct answers with correct explanation May be based on incorrect answers in Part 1 Give credit for the following or equivalent: • "Streptococcus is the largest cell because .001 is the largest # and the smallest cell is Influenza because .0000001 is the smallest #." or • "The smallest is the one with −7 as the exponent for 10 in scientific notation. The largest is the one with −3 as the exponent for 10 in scientific notation. So "S" is the largest and "I" is the smallest." or

	• "S is the largest and I is the smallest W: .000011 S: .001 I: .0000001" **OR** 1 point: Give credit for the following: • Correct largest cell (Streptococcus) with explanation Smallest is incorrect or missing or • Correct smallest cell (Influenza) with explanation Largest is incorrect or missing or • Correct largest cell and smallest cell are listed Explanation is missing
3	**2 Points Possible** 1 point: Correct answer: 700 **AND** 1 point: Correct and complete procedure shown and/or explained Work may contain a calculation or copy error Give credit for the following or equivalent: • 0.0049 ÷ 0.000007 = # or • 4900 ÷ 7 = # or • $\frac{4.9 \times 10^3}{7.0 \times 10^6}$ = # or • 0.000007 x 700 = 0.0049

Mathematics Reference Sheet
Grade 8

Use the information below, as needed, to answer questions on the Mathematics test.

Square Area = s^2 Perimeter = $4s$	**Rectangle** Area = lw Perimeter = $2(l + w)$	**Triangle** Area = $\frac{1}{2}bh$ Perimeter = $a + b + c$
Circle Area = πr^2 Circumference = $2\pi r$	**Parallelogram** Area = bh Perimeter = $2a + 2b$	**Equilateral Triangle** Perimeter = $3s$
Cube Volume = s^3	**Cone** Volume = $\frac{1}{3}\pi r^2 h$ Surface Area = $\pi rl + \pi r^2$ Slant Height = l	**Rectangular Prism** Volume = lwh
Pyramid Volume = $\frac{1}{3}$ (area of base)h	**Sphere** Volume = $\frac{4}{3}\pi r^3$ Surface Area = $4\pi r^2$	**Cylinder** Volume = $\pi r^2 h$ Surface Area = $2\pi rh + 2\pi r^2$
		Trapezoid Area = $\frac{1}{2}h(b_1 + b_2)$

Miscellaneous Formulas and Conversions

Sum of interior angles of a polygon having n sides: $(n-2)180°$

Slope of (non-vertical) line: $m = \frac{y_2 - y_1}{x_2 - x_1}$

Distance between points on a coordinate plane: $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

Midpoint: $\left(\frac{x_2 + x_1}{2}, \frac{y_2 + y_1}{2}\right)$

1 foot = 12 inches
1 yard = 3 feet
1 mile = 5,280 feet

$\pi \approx 3.14$

1 cup = 8 ounces (oz)
1 pint = 2 cups
1 quart = 2 pints
1 gallon = 4 quarts

1 kilogram = 1000 grams
1 meter = 100 centimeters
1 decimeter = 10 centimeters
1 centimeter = 10 millimeters
1 kilometer = 1000 meters
1 liter = 1000 milliliters

Read the passage. Then answer multiple-choice questions 1 through 8 and open-response question A.

River Dance

by Ann Cooper

The High Plains of Eastern Colorado are still locked in winter. It is mid-March, spring break, but it doesn't feel like spring. Swirls of snow from last week's storm fringe fence lines and gulches. Weeds and grasses along the highway are tawny yellow and dead. Away to the north, all we can see of the South Platte River is a snaking line of leafless cottonwoods. Outside, the temperature is about fifteen degrees and the wind is blowing. Brrr! Some people we know are heading west to the mountains to ski over spring break. Others are heading to warm places. We are zooming east on the interstate on our way to Kearney, Nebraska, to watch a very special dance.

The dancers are birds, sandhill cranes, thousands and thousands of them. In early spring they begin to migrate north to their nesting grounds. By the time they've flown nonstop about six hundred miles from west Texas or New Mexico, they're ready for a rest. Every year they stop along the Platte River valley. They choose places from Overton, west of Kearney, all the way to Grand Island. Here they spend a few weeks regaining energy and mingling with other cranes. At night they roost on sandbars in the river for safety. By day they eat. They need to refuel for the rest of their long journey. Sometimes they dance.

We arrive in the Kearney area in late afternoon. We leave the interstate to grab a quick snack at the gas station. Then we drive the back roads. Soon, among the cornstalks in a wintry looking field, we see about fifty cranes. They are *very* large, gangly birds! Our field guide says greater sandhill cranes can be fifty inches tall. Wow! That's the height of an average second-grader. The cranes step through the stubble on long, spindly legs. Their feathers are grayish, some tinged with russet, and their tufty tails droop. They remind me of ostriches. Above their long beaks are bright red crown patches. The patches seem to glow in the late-afternoon slanted light. Through our binoculars, we can

see that the patches are not feathery: they are bare skin!

4 We watch from the car. We don't want to disturb the cranes. This is their place. They act *fidgety* and they're quite noisy. Some are eating, gleaning leftover grain. Others are hustling and crowding each other. One leaps into the air, flapping its wings, its spindly legs dangling. Then it lands again. Now two are leaping and flapping together. The excitement seems to be catching. Soon, more cranes are leaping and landing, flapping and squawking. It's quite a dance!

As dusk falls, the cranes leave the field to join other flocks overhead. They mill around. It looks as if they are trying to decide something. After a while they all fly off toward the river. And then it's dark.

Next morning, way before dawn, we bundle up to go and see the cranes at their nighttime roost. The chill cuts through all our layers of clothing. I have to scrunch my fingers inside my mittens and stick my hands deep in my pockets. My breath feels prickly and freezes in my nose. We hike to the river and out across it along an old railroad bridge. We can't use a light and we can't talk. We mustn't disturb the roosting birds. They roost on the smooth sandbars out in the river, but we can't see anything yet. It's pitch black. Every so often a spooky warbling sound echoes from the river. Before we can see the slightest hint of light in the eastern sky, the cranes begin to stir. We stir, too. We jump up and down on the spot, trying to warm our toes without making a noise. It is so cold that our breath huffs out like dragon breath. In the half-light we can see that the cranes are fussing now, fluffing up their feathers, preening, and drinking, their long beaks ladling up water, pointing skyward as the drink trickles down their skinny throats.

The noise and restlessness increase. Groups of cranes leap up from the sandbars and circle. Their weird gargling *garroooooooo* sounds are unearthly and spine-chilling. We shiver with nice fright as well as cold. More cranes join the ones flying until the sky seems full of huge wings and straggly, "under carriage" legs. Then, as if they shared one brain, they flap away toward the flooded meadows.

8 A crane expert tells us there is a famous saying about the Platte River, that it is "a mile wide and an inch deep, too thick to drink and too thin

to plow." It does look brownish and thick—muddy. And it is quite wide where we walk. That's why the cranes like it here. The sandy islands are good roosts, safe from predators—especially since some of the cranes seem to act as "guard birds" all night. The expert says that long ago the river was wider than it is now. It used to flood often, washing away tree seedlings whose roots were trying to get a hold on the sandbars in the river channels. Now, people divert water from the river for farming. There are dams up stream. Without floods to wash away seedlings, tall willows and cottonwoods cover some islands. These places are no longer good crane habitat. The expert tells us cranes need shallow channels, bare sandbars and islands, and flooded meadows, where they can pick and peck to find worms and grubs. Most of all, the cranes need there to be enough water flowing to keep the Platte River a mile wide. A single, deep channel without sandbars is of no use to them.

It's light now, and all the cranes have left the sandbar to roost. We drive the back roads some more, wanting to see the cranes dance again. By noon, it is even colder. An icy fog closes in and the snow begins to fall. We head home toward Denver, not wanting to be caught in a blizzard. Driving into the swirl of snow, we think about the cranes. We wonder how they'll do on their long, tough journey north through the still-wintry land ahead. We're glad they take their spring break in the Platte River valley, in areas set aside for them. Most of all, we're glad we got to see their most amazing river dance.

1

The author of this passage *most likely* wanted to persuade readers that —

- **A** the Platte River crane habitat is changing
- ☞ **B** sandhill cranes are interesting creatures
- **C** Eastern Colorado is too cold for cranes
- **D** sandhill cranes should not be disturbed

2

Which of the following is part of a good habitat for cranes?

- ☞ **A** Flooded meadows
- **B** Streams with dams
- **C** Tree-covered islands
- **D** Single deep channels

3

What is the author's focus in paragraph 4?

- **A** The author explains why the cranes are disturbed.
- ☞ **B** The author describes the behavior of the cranes.
- **C** The author compares the movements of two cranes.
- **D** The author tells about the different sounds cranes make.

4

Based on information in the passage, which of the following is true about sandhill cranes?

- **A** They like to fly late at night.
- **B** They are unable to survive in cold weather.
- ☞ **C** They are able to fly long distances without stopping.
- **D** They prefer nesting in the tops of tall cottonwood trees.

5

Based on this passage, in which of the following activities would the author be *most likely* to participate?

A Museum tour
B Snowboarding
☞ **C** Wildlife safari
D Broadway show

6

Which of the following animal behaviors is *most* similar to the crane dance?

A A hen laying an egg
B A seagull eating a fish
C An owl roosting in a tree
☞ **D** A peacock spreading its tail

7

By using the word *fidgety* in paragraph 4, the author helps the reader understand that the cranes are —

A sleepy
B unhappy
☞ **C** restless
D curious

8

In paragraph 8, what does the author mean when she says, "some of the cranes seem to act as 'guard birds' all night"?

A Some cranes keep the predators safe at night.
☞ **B** Some cranes give a warning if danger appears.
C Some cranes protect the cranes' food and water.
D Some cranes keep the other cranes from leaving the area.

Read the article. Then answer multiple-choice questions 9 through 16 and open-response question B.

Give More of Yourself—Volunteer Your Time

"Everybody can be great because anybody can serve. You don't have to have a college degree to serve. You don't have to make your subject and verbs agree to serve. You only need a heart full of grace, a soul generated by love."

Martin Luther King, Jr.

- A high school freshman in Pennsylvania started a clothing drive for people who are homeless.
- In Wisconsin, a high school junior spent a semester in Chile inoculating children against disease.
- A Florida teenager began a project to feed the hungry every Thanksgiving.

In towns, cities, and states across the nation, teens are doing their part to make the world a better place. Volunteering is *everywhere*. Are you lending a hand?

You can volunteer on a large scale, like the teenagers you just read about. But if you're not sure you're ready to organize a big project on your own, you may decide to donate your time to a nonprofit organization. Volunteers keep the cogwheels of organizations like these greased and running.

And what do all of the volunteers get for offering their services? Money? No. Fame and glory? Probably not. Gratitude? Definitely. A deep-down sense of personal fulfillment? You better believe it! Not only do volunteers feel good about pitching in for a cause they care about, but they also learn more about themselves, and the world, through their hard work and dedication.

Maybe you want to volunteer, but you'd prefer to start small. No problem. You can give your time in a very personal way by working one-on-one with someone who's in need. Is there an elderly person in your apartment building or neighborhood who could use help running errands, cleaning, reading the

newspaper, or preparing meals? A parent who might need some free babysitting? Is there a child you know who's going through a difficult time at home or at school? What might you do to help? Giving your time—giving of *yourself*—definitely has rewards. You'll learn to be more compassionate as you realize that people in your community need help. And you'll become more confident when you find out that *you* are the right person to give it.

It's not just people who need help. You could volunteer on behalf of animals, donating time at a local shelter. You could focus on the environment by getting involved in a community garden or a tree-planting program. Or you could spend some time picking up litter in your neighborhood. All of these activities add up to time well spent.

Need more ideas? Brainstorm a list using the suggestions below for inspiration. You can organize your list by categories like People, Animals, and Community/Environment. If you want to get more specific, you can further divide your list into topics like Kids, Wildlife, Recycling, and so on.

F.Y.I.

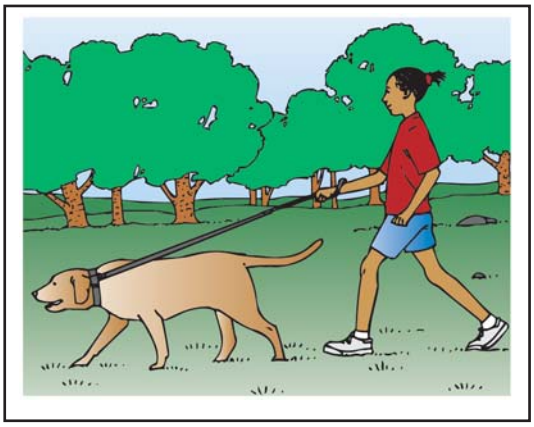
Volunteering is one kind of work that you don't have to be a certain age to do. Few volunteer organizations will turn you down because of how old you are. You might even get to set your own schedule and work as many hours as you wish.

People

- Donate time at a soup kitchen.
- Become a reading tutor.
- Help out at a homeless shelter.
- Participate in a blood drive.

Animals

- Contact your local zoo to find out about adopting or sponsoring an animal.
- Walk dogs or clean cages at a shelter.
- Provide a foster home for animals awaiting adoption.
- Offer free pet care to families on vacation.



Community/Environment

- Encourage others to recycle.
- Hold an environmental fair at your school.
- Plant some flowers in a park.
- Adopt an acre of rain forest.
- Beautify a vacant lot.

One of the best things about volunteering is that *anyone* can do it. You don't need experience or expertise—all you need is a wish to help. In fact, for many teens, volunteering is a good introduction to alternative learning experiences. Donating your time is an easy—and inspiring—place to start.

9

Read the following organizational chart of information from the article.

Volunteering Opportunities
1. Help animal rescue shelters
   a. Pass out pamphlets
   b. Educate owners about breeding
   c. _____

Which of these *best* fits on line c?

A Walk the neighbor's dog
B Recycle food containers
☞ **C** Clean out the cages
D Read animal stories

10

Which information would have been *most* useful to the reader if included in the article?

A Names and addresses of local employers
☞ **B** A list of nonprofit organizations
C Instructions on how to fill out an application
D Background information about popular charities

11

The author asks questions in the article to —

A provide additional facts
☞ **B** encourage readers to think
C summarize important points
D include study questions for readers

12

The *main* purpose of this article is to —

A explain the requirements for volunteering
☞ **B** encourage teens to volunteer their time and services
C describe interesting examples of teen volunteers
D provide information about the rewards of volunteering

13

According to the article, one of the *best* things about volunteering is that —

- **A** teens become more compassionate
- **B** people are not required to have college degrees
- ☞ **C** anyone who wants to help can do it
- **D** opportunities to work with animals are available

14

Where would be a good nonprofit place for teens to volunteer their services?

- ☞ **A** A facility that rescues wildlife
- **B** A large grocery store
- **C** A children's theme park
- **D** A business that sells exotic animals

15

What is the purpose of the bullet points used by the author at the beginning of the article?

- **A** To highlight states where teens have successfully volunteered
- **B** To summarize important volunteer projects involving different communities
- ☞ **C** To show readers examples of teens who have volunteered
- **D** To provide additional information about volunteering opportunities

16

Which word *best* describes the tone used by the author in this article?

- **A** Playful
- **B** Sympathetic
- **C** Blunt
- ☞ **D** Persuasive

READING OPEN-RESPONSE ITEM A, FOR PASSAGE "RIVER DANCE"

A

Imagine that you are a wildlife biologist designing a place for sandhill cranes to stop and rest on their migratory journey.

Describe what this habitat would look like and how you would make it ideal for sandhill cranes, taking into consideration their diet, roosting habits, safety, etc.

Use information from the passage to support your answer.

RUBRIC FOR READING OPEN-RESPONSE ITEM A, FOR PASSAGE "RIVER DANCE"

SCORE	DESCRIPTION
4	The response describes an ideal habitat **and** includes accurate and relevant details from the passage about diet, roosting habits, and safety.
3	The response describes an ideal habitat **and** includes accurate and relevant details from the passage about **two** of the following: diet, roosting habits, or safety. **OR** The response includes relevant details about **all** of the following: diet, roosting habits, and safety.
2	The response describes an ideal habitat **and** includes accurate and relevant details from the passage about **one** of the following: diet, roosting habits, or safety. **OR** The response includes relevant details about **two** of the following: diet, roosting habits, or safety.
1	The response describes the ideal habitat. **OR** The response includes relevant details about **one** of the following: diet, roosting habits, or safety. **OR** The response demonstrates minimal understanding of the question.
0	The response is incorrect and shows no evidence that the student understands the task. The response may be off topic or completely irrelevant.
B	Blank–No response. A score of "B" will be reported as "NA." (No attempt to answer the item.) Score of "0" assigned for the item.

READING OPEN-RESPONSE ITEM B, FOR PASSAGE "GIVE MORE OF YOURSELF"

B

Explain why the author thinks that being a volunteer is important.

Use *three* examples of information from the article to support your answer.

RUBRIC FOR READING OPEN-RESPONSE ITEM B, FOR PASSAGE "GIVE MORE OF YOURSELF"

SCORE	DESCRIPTION
4	The response explains why the author thinks that being a volunteer is important, **and** provides **three** examples from the passage to support the explanation.
3	The response explains why the author thinks that being a volunteer is important, **and** provides **two** examples from the passage to support the explanation. **OR** The response provides **three** examples from the passage of why volunteering is important.
2	The response explains why the author thinks that being a volunteer is important **and** provides **one** example from the passage to support the explanation. **OR** The response provides **two** examples from the passage of why volunteering is important.
1	The response explains why the author thinks that being a volunteer is important. **OR** The response provides **one** example from the passage of why volunteering is important. **OR** The response demonstrates minimal understanding of the question.
0	The response is incorrect and shows no evidence that the student understands the task. The response may be off topic or completely irrelevant.
B	Blank—No response. A score of "B" will be reported as "NA." (No attempt to answer the item.) Score of "0" assigned for the item.

17

Read the paragraph.

[1]Setting up a plan for exercising is important to a person's health. [2]Without a plan, opportunity is lost due to lack of focus and sometimes lack of information. [3]To make the most of your efforts, it is important to review different types of exercises to determine which exercises are appropriate for you. [4]Begin with exercises that address your weak muscles, yet challenge your level of fitness. [5]However, do not put yourself in potential danger by over-exercising or by using improper techniques.

A paragraph about fishing *modeled on the paragraph above* would *most likely* address an audience to —

A provide information about types of fish
B describe a lake setting where people fish
C narrate the adventures of a fishing contest
☞ **D** promote participation in a fishing expedition

18

Read the paragraph.

[1]Lakes in Arkansas provide ample opportunities for water recreation. [2]Many out-of-state visitors come to Arkansas to engage in water sports and thereby boost tourism. [3]Locals take advantage of state parks and resorts that have developed around local springs. [4]Dams on major rivers not only help to control floods but also generate power for the citizens of the state.

Which sentence *best* concludes the paragraph?

A Various water sources provide electricity to the citizens of Arkansas.
B Natural springs are popular sites of interest in Arkansas.
☞ **C** The multiple uses of water make it a valuable natural resource to Arkansas.
D The spread of tourism depends on the numerous lakes of Arkansas.

Writing Prompt C

C

Some people never want to grow up and become adults, and some people can hardly wait. Choose one of the following statements and tell why you agree with it.

It is more fun to be a child than an adult.

It is more fun to be an adult than a child.

Before you begin to write, think about what it is like to be a child and what it would be like to be an adult. Which do you think is more fun? **Why** do you think the way you do?

Now write an essay to express your opinion. Is it more fun to be a child, or is it more fun to be an adult? Give enough detail so that your readers will understand.

Writer's Checklist

1. Look at the ideas in your response.

   — Have you focused on one main idea?
   — Have you used enough details 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.

   — 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.)
   — Do you have sentences of different lengths? (Hint: Be sure you have variety in sentence lengths.)
   — Are your sentences alike? (Hint: Use different kinds of sentences.)

3. Look at the words you have used.

   — 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.

   — Can others read your handwriting with no trouble?

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 composition 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 • Standard word order • Absence of fused sentences
• Expansion through standard coordination and modifiers • Embedding through standard subordination and modifiers

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 cueing 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 **inconsistent control*** of several of the domain's features, indicating significant weakness in the domain.
1 = The writer demonstrates **little** or **no** control* of most of the domain's features.

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

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.

Non-scoreable and Blank Papers
Compositions are scored, unless they are off-topic, illegible, incoherent, refusals to respond, written in a language other than English, or too brief to assess. A score of "NA" indicates that the student's writing entry was non-scoreable and that entry will receive a score of "0."

PART III Item Correlation with Curriculum Frameworks– 2009 Augmented Benchmark Grade 8

The Arkansas *Mathematics Curriculum Framework**

Strands	Content Standards	Student Learning Expectations
Number and Operations	1. Number Sense: Students shall understand numbers, ways of representing numbers, relationships among numbers and number systems	1. Read, write, compare and solve problems, with and without appropriate *technology*, including numbers less than 1 in *scientific notation*
	3. Numerical Operations and Estimation: Students shall compute fluently and make reasonable estimates.	4. Apply factorization to find *LCM* and *GCF* of *algebraic expressions* Ex. $4x^2y^3$ $6xy^2$ *GCF* = $2xy^2$ *LCM* = $12x^2y^3$ 5. Calculate and find approximations of *square roots* with appropriate *technology*
Algebra	5. Algebraic Representations Students shall represent and analyze mathematical situations and structures using algebraic symbols	2. Solve and graph *linear equations* (in the form $y = mx + b$)
	6. Algebraic Models: Students shall develop and apply mathematical models to represent and understand quantitative relationships	1. Describe, with and without appropriate *technology*, the relationship between the graph of a line and its equation, including being able to explain the meaning of slope as a constant rate of change (rise/run) and *y-intercept* in real world problems
Geometry	8. Geometric Properties: Students shall analyze characteristics and properties of 2 and 3 dimensional geometric shapes and develop mathematical arguments about geometric relationships	3. Determine appropriate application of geometric ideas and relationships, such as *congruence*, similarity, and the *Pythagorean theorem*, with and without appropriate *technology*
	11. Visualization and Geometric Models Students shall use visualization, spatial reasoning and geometric modeling	1. Using isometric dot paper interpret and draw different views of buildings
Measurement	13. Systems of Measurement: Students shall identify and use units, systems and processes of measurement	2. Solve problems involving *volume* and *surface area* of *pyramids*, *cones* and composite figures, with and without appropriate *technology* 3. Apply proportional reasoning to solve problems involving indirect measurements, scale drawings or rates
Data Analysis and Probability	14. Data Representation Students shall formulate questions that can be addressed with data and collect, organize and display	3. Interpret or solve real world problems using data from charts, *line plots*, *stem-and leaf plots*, *double-bar graphs*, *line graphs*, *box-and-whisker plots*, *scatter plots*, *frequency tables or double line graphs*
	17. Probability: Students shall understand and apply basic concepts of probability	1. Compute, with and without appropriate *technology*, probabilities of compound events, using organized lists, *tree diagrams* and *logic grid*

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

PART III Item Correlation with Curriculum Frameworks– 2009 Augmented Benchmark Grade 8

Released Items for Mathematics*

Item	Strand	Content Standard	Student Learning Expectation
1	G	11	1
2	N	3	5
3	N	3	4
4	D	14	3
5	G	8	3
6	A	5	2
7	D	17	1
8	M	13	2
9	M	13	3
10	A	6	1
A	D	17	1
B	N	1	1

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed.

Non-Released Items for Mathematics*

Item	Strand	Content Standard	Student Learning Expectation
1	A	4	4
2	D	17	2
3	N	1	1
4	M	13	1
5	D	15	4
6	A	5	2
7	G	10	1
8	N	1	4
9	D	17	1
10	G	8	3
11	D	15	3
12	A	4	3
13	G	8	2
14	G	9	2
15	G	8	1
A	G	8	3
B	M	13	4
C	A	4	2

PART III Item Correlation with Curriculum Frameworks—2009 Augmented Benchmark Grade 8

The Arkansas *English Language Arts Framework—Reading Strand**

Content Standards	Student Learning Expectations
9. Comprehension: Students shall apply a variety of strategies to read and comprehend printed material.	2. Evaluate the interrelations of text and world issues/events by applying connection strategies 6. Monitor reading strategies, including rereading, using resources, and questions, and modify them when understanding breakdown 7. Connect own background knowledge and personal experience to make inferences and to respond to new information presented in text 13. Distinguish among stated fact, reasoned judgment, and opinion in text 15. Identify main ideas and supporting evidence in short stories and novels 16. Use the *text features* to locate and recall information, with emphasis on text organizers 17. Determine text structure(s) to enhance understanding 18. Organize information, including simple outlining 19. Use skimming, scanning, notetaking, outlining, and questioning as study strategies 22. Evaluate personal, social, and political issues as presented in text
10. Variety of texts: Students shall read, examine, and respond to a wide range of texts for a variety of purposes.	4. Examine the author's credibility, use of text structure, word choice, and viewpoint to evaluate message
11. Vocabulary, Word Study, and Fluency: Students shall acquire and apply skills in vocabulary development and word analysis to be able to read fluently.	7. Determine useful and relevant words

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

Released Items for Reading*

Item	Content Standard	Student Learning Expectation	Passage Type
1	10	4	Literary
2	9	19	Literary
3	9	13	Literary
4	9	6	Literary
5	9	7	Literary
6	9	7	Literary
7	11	7	Literary
8	9	7	Literary
9	9	18	Practical
10	9	2	Practical
11	9	17	Practical
12	10	4	Practical
13	9	15	Practical
14	9	7	Practical
15	9	16	Practical
16	10	4	Practical
A	9	7	Literary
B	9	22	Practical

Non-Released Items for Reading*

Item	Content Standard	Student Learning Expectation	Passage Type
1	11	7	Content
2	11	5	Content
3	9	1	Content
4	10	4	Content
5	9	6	Content
6	9	17	Content
7	9	2	Content
8	9	13	Content
A	9	22	Content

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed.

PART III Item Correlation with Curriculum Frameworks—2009 Augmented Benchmark Grade 8

The Arkansas *English Language Arts Framework—Writing Strand**

Content Standards	Student Learning Expectations
4. Students shall employ a wide range of strategies as they write, using the writing process appropriately.	3. Select a focus and an *organizational structure* based on purpose, audience, length, and required format for *expository*, narrative, descriptive, and persuasive writing 6. Create an effective lead paragraph by using quotes, description, or questions with the last sentence as a thesis statement

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

Released Items for Writing*

Item	Content Standard	Student Learning Expectation
17	4	3
18	4	6

Non-Released Items for Writing*

Item	Content Standard	Student Learning Expectation
9	6	1
10	7	1

*Only the predominant Strand, Content Standard, and Student Learning Expectation is listed.

Arkansas Comprehensive Testing, Assessment, and Accountability Program