New Jersey Assessment of Skills & Knowledge 2007

Grade 7

Language Arts Literacy/Mathematics

Assessment Samples
Acknowledgments

Directions to the Student

Today you will be taking the Language Arts Literacy New Jersey Assessment of Skills and Knowledge. The test consists of a writing task and reading passages. The passages are followed by multiple-choice and open-ended questions.

Sample questions have been included. They show you the different types of questions on the test and how to mark or write your answers in your answer folder.

There are several important things to remember:

1 Read each passage carefully to learn what it is about. You may refer back to the reading passage as often as necessary.

2 Read each question carefully and think about the answer. Then choose or write the answer that you think is best.

3 When you are supposed to write your answers, write them neatly and clearly on the lines provided in your answer folder.

4 When you are supposed to select the answer, make sure you fill in the corresponding circle in your answer folder.

5 If you finish a part of the test early, you may check over your work in that part.

6 If you do not know the answer to a question, skip it and go on. You may return to it later if you have time.
Writing Task

There is a park in your town used by the residents. A popular fast-food chain wants to buy the land and build a restaurant on it. Losing the park to get the restaurant has caused a conflict in the town.

Write a letter to the mayor explaining whether you think the town should keep or sell the park. Use examples and other evidence to support your position.

You may use the box provided on pages 2 and 3 of your answer folder to plan your ideas before you begin writing your letter. Then write your letter on the lines that follow.
Sample Questions

Look at the sample test questions that follow. These questions do not relate to the passages in the test. These questions will show you what the questions in the test are like and how to mark or write your answers in your answer folder.

Multiple-Choice Sample Question

For this type of question, you will select the answer and fill in the corresponding circle in your answer folder.

S1 What does the last sentence of the story mean?

A. The boy and the pups were rescued by a hunter and his grown hounds.

B. The boy and his pups made the lion think they were a grown man and experienced hunting dogs.

C. The boy fell asleep and dreamed that he and the pups were grown up and experienced hunters.

D. By morning, the lion was finally scared off by another mountain lion.

Multiple-Choice Sample Answer

S1  A  [ ]  C  [ ]  D

For this sample question, the answer selected was B. Therefore, in the answer folder, circle B was filled in.
Open-Ended Sample Question

For this type of question, you will write a longer and more detailed answer in your answer folder.

S2 Compare how Billy feels when he first realizes there is a mountain lion nearby to the way he feels by the end of the story.

Use information from the story to support your response. Write your answer in your answer folder.

Open-Ended Sample Answer

When Billy first realizes there is a mountain lion nearby, he feels fear. But then Billy starts to feel brave when he sees how brave his pups are. Together, they scare off the mountain lion. By the end of the story, Billy feels great pride in his and his pups’ accomplishments of having scared off the lion and having made it think they were grown up and experienced hunters.

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Bird-calling contests allow people to imitate various types of birds. In this story, a boy named Sam must decide what he thinks about his father’s participation in a bird-calling contest.

Yellow-bellied Flycatcher
By Joanne Barkan
Illustrated by Christina Sun

Call me Sam. That’s short for Samuel J. Seever.

I’ve been thinking about how today is the Fourth of July, and there’s a story I can tell you about that. A story about last year’s Fourth of July.

You know how there are some things you really hate. And I mean really hate.

Well, for me, the worst—and I mean the worst—was my dad on the Fourth of July. Now don’t get me wrong—my dad’s a great guy and a good father and I love him and all that. But how many fathers that you know are into bird calling. That’s right, bird calling. In public. I know this all sounds pretty weird, but it’s true. You see, there’s a big fair in our town on the Fourth of July—one of those fairs with rides and games and lots of food. And there’s this bird-calling contest too, with people up on a stage, imitating different kinds of birds in front of judges.

And every year there’s my dad onstage in front of everyone, doing his yellow-rumped warbler.

Have you ever seen anyone do bird calls? I mean someone who’s really into it? Let me tell you something—they don’t just stand there and whistle. They have to scrunch up their shoulders and twist their heads around to make the sounds come out right. They end up making some pretty weird faces. And when your own dad’s up there onstage . . .

So why stick around to watch the contest? Well, to tell you the truth, I didn’t want to make my dad feel bad. I mean he’s really into this stuff. He calls it a passion—you know, something you love to do more than anything else.

Anyway—here’s what happened last year.

The phone rang one night about a week before the fair. “Hello? Ronna!” I heard my mom say. “How are you?”

Ronna is my mom’s sister. She and my Uncle Peter and my cousin Rob live in New York. They own a restaurant there.

“You’ve got a business trip to California?” my mom said. “Well, of course we’d love to have Rob spend a few days with us while you’re away.”
“When’s Rob coming?” I yelled, as I ran downstairs from my bedroom.

My mom called out, “On the Fourth of July.”

I stopped short—so short that I tripped and had to grab the banister. I groaned, pressed my forehead against the railing, and sat down on the stairs.


I had to keep Rob from seeing the contest. The rest of my life as a normal kid depended on it. And keeping Rob away from the contest meant convincing my parents not to go to the fair.

The night before the Fourth, I got desperate. I couldn’t eat my dinner. All of a sudden, I put down my fork and sort of yelled, “Why can’t we be a normal family for once—and do something normal for the Fourth of July?”

My mom looked at my dad, and my dad said, “OK, we’ll skip the fair this year.”

I knew that they knew why I didn’t want to go to the fair. And don’t think I didn’t feel bad about it. But like I said, I was desperate.

The next day, my parents decided we’d pick Rob up at the airport and go right to this restaurant called Chez Pierre. It’s one of those fancy places—the kind with real towels in the bathroom.

On the way to the airport, it was quiet in the car—very quiet. I kept thinking about my dad’s bird calling and how much he loves it. I mean the guy’s a fanatic. I began thinking about what he said when I started collecting baseball cards. He said he was glad I had a passion too.

We drove up to the airport terminal. Rob was already waiting outside. On the way to the restaurant, Rob handed me something. “This is for you, Sam,” he said.

It was a baseball card. My dad took a quick look at it.


I stared at Cal’s picture. Yeah, but what would he think about bird calling? I wondered. I knew the answer.

“Hey, stop the car,” I said, grabbing the front seat. “I mean, stop going to the restaurant. I mean—let’s go to the fair!” Then I turned to Rob. “My dad’s going to be in a bird-calling contest.”

My dad didn’t say anything for a minute. Then he spoke to Rob. “I hope you don’t mind going. The town fair and the contest are sort of a family tradition.”

It took us a while to get across town and out to the fairgrounds. By the time we parked the car and made it to the stage, the contest had started.

“We don’t have to wait around for this,” I whispered to Rob. “Let’s check out the cotton candy. Or maybe the roller coaster.”
But Rob nudged me because my dad was on the stage. My dad began doing his yellow-bellied flycatcher.

Then old Rob nudged me again. You know what he said? “Hey, your dad’s really good!”

I’d never thought about my dad’s being good at bird calling—even though I knew he was. And I’d never thought about how Rob might think it was neat.

The judges were about to announce the winner. One of them got up and said real loud, “First prize in the small-songbird category goes to—Albert Seever for his yellow-bellied flycatcher!”

My dad! I was in sort of a daze, but Rob started pounding me, and then we were both jumping up and down and pounding each other and yelling.

That was last year. This year I’m older, so I understand things a lot better. Things like baseball and what my dad said about passion. And I don’t hate the bird-calling contest anymore. Like my dad said, it’s a family tradition. You know—I like the sound of that. I really do.
1 Why does Rob stay to watch the bird-calling contest?
   A. He wants to make fun of Sam.
   B. He is curious to see his uncle compete.
   C. He wants to show off his own bird calls.
   D. He knows one bird call but wants to learn more.

2 At the end of paragraph 6, Sam says, “And when your own dad’s up there on stage . . .” How would Sam most likely complete this sentence?
   A. you really wish you could just disappear.
   B. you really don’t have to stick around and watch.
   C. you really hope he can defeat all the other people.
   D. you really want to learn how he makes those weird faces.

3 How did Rob’s gift of a baseball card change Sam’s mind about the bird-calling contest?
   A. It showed him that bird calling is an unusual hobby.
   B. It reminded him that having a passion is important.
   C. It informed him about hobbies that baseball players enjoy.
   D. It helped him see similarities between bird calling and baseball.

4 When Sam says “The rest of my life as a normal kid depended on it” in paragraph 16, the author is using
   A. an idiom.
   B. flashback.
   C. exaggeration.
   D. a comparison.

5 In paragraph 21, fanatic means
   A. expert.
   B. teacher.
   C. enthusiast.
   D. performer.

6 Which question would Rob most likely ask Sam after the contest to help him better understand what happened?
   A. Why did your father learn to make bird calls?
   B. Why is the bird-calling contest held on the Fourth of July?
   C. Why do you have to sign up to compete in the bird-calling contest?
   D. Why did you want to go to the restaurant instead of to the bird-calling contest?
7 What does Sam’s father do at the bird-calling contest that most embarrasses Sam?
   A. He makes funny faces.
   B. He waves to the crowd.
   C. He always wins first prize.
   D. He does the call incorrectly.

8 Which of the following best describes Rob?
   A. rude and jealous
   B. smart and forgiving
   C. boastful and impatient
   D. open-minded and kind

9 By the end of the story, Sam learns
   A. holidays are a celebration of different traditions.
   B. first impressions are not always correct.
   C. to express his feelings to his family.
   D. to accept other people’s interests.

10 The purpose of this story is to
    A. entertain readers with an amusing tale.
    B. teach readers about different types of birds.
    C. persuade readers to try bird calling as a hobby.
    D. inform readers of the different events at the fair.
11 Think about how Sam changed on the last Fourth of July when his cousin Rob visited.
   • Explain how Sam’s attitude toward the bird-calling contest changed throughout that day.
   • Predict how Sam will react to the unique interests of others now.
   Use specific information from the story and any additional insight to support your response.

12 The story is told completely from Sam’s point of view. Think about how the story would be different if it were told from Sam’s father’s point of view.
   • Why would Sam’s father agree to go to the restaurant instead of going to the bird-calling contest? Explain.
   • How would Sam’s father feel about Sam changing his mind? Explain.
   Use specific information from the story and any additional insight to support your response.
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Directions to the Student

Today you will be taking the Mathematics New Jersey Assessment of Skills and Knowledge. This is a test of how well you understand mathematics.

The test consists of two different types of questions: multiple choice and open ended.

Sample questions have been included. They show you the different types of questions on the test and how to mark or write your answers in your answer folder.

There are several important things to remember:

1. Read each question carefully and think about the answer. Then choose or write the answer that you think is best.

2. When you are asked to select the answer, make sure you fill in the corresponding circle in your answer folder.

3. When you are asked to write your answers, write them neatly and clearly on the lines or in the space provided in your answer folder.

4. If you finish a part of the test early, you may check over your work in that part.

5. If you do not know the answer to a question, skip it and go on. You may return to it later if you have time.
Sample Questions

To help you understand how to answer the test questions, look at the sample test questions that follow. These questions will show you what the questions in the test are like and how to mark your answers in your answer folder.

Multiple-Choice Sample Question

For this type of question, you will select the answer and fill in the corresponding circle in your answer folder.

S1  Sam has a 30-gallon aquarium for his fish. Which metric unit of measure is best for calculating the volume of the tank?

A. liter
B. centimeter
C. millimeter
D. meter

Multiple-Choice Sample Answer

S1  B  C  D

For this sample question, the answer selected was A. Therefore, in the answer folder, circle A was filled in.
Open-Ended Sample Question

For this type of question, you will write an answer in your answer folder that may consist of a few words or numbers, or an explanation to support your answer.

S2 Paul rakes leaves in his neighborhood after school and on weekends. The chart below shows Paul's work record for the week.

Complete the chart by finding the number of hours and minutes Paul worked each day.

<table>
<thead>
<tr>
<th>Day</th>
<th>Starting Time</th>
<th>Ending Time</th>
<th>Amount of Time Spent in hours (hr) and minutes (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>4:00</td>
<td>5:30</td>
<td></td>
</tr>
<tr>
<td>Wednesday</td>
<td>6:15</td>
<td>7:15</td>
<td></td>
</tr>
<tr>
<td>Friday</td>
<td>3:30</td>
<td>5:30</td>
<td></td>
</tr>
<tr>
<td>Saturday</td>
<td>2:00</td>
<td>3:15</td>
<td></td>
</tr>
</tbody>
</table>

How many total hours and minutes did Paul rake leaves during the week? Use the space in your answer folder to show your work and record your answer.

Open-Ended Sample Answer

S2

Show your work here.

<table>
<thead>
<tr>
<th>Day</th>
<th>Amount of Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>1 hr 30 min</td>
</tr>
<tr>
<td>Wednesday</td>
<td>1 hr 0 min</td>
</tr>
<tr>
<td>Friday</td>
<td>2 hr 0 min</td>
</tr>
<tr>
<td>Saturday</td>
<td>1 hr 15 min</td>
</tr>
</tbody>
</table>

+ 1 hr 15 min

5 hr 45 min

Answer: 5 hr 45 min

For this sample question you would find the number of hours and minutes Paul worked each day and complete the chart in your answer folder, and find how many total hours and minutes Paul worked during the week, and write 5 hr 45 min on the line in your answer folder.
1. Vanna calculates that 32% of her compact discs fall into the classical music category. About what fraction of her compact discs are classical music?

A. \( \frac{1}{3} \)

B. \( \frac{1}{2} \)

C. \( \frac{2}{3} \)

D. \( \frac{3}{2} \)

2. Using a coordinate grid like the one below, treasure hunters mapped the locations of four shipwrecks in a lake. The wrecks are at (0, –3), (2, 0), (–1, 3), and (–5, 2).

If the points on the grid are connected in order, which geometric shape will be formed?

A. pentagon

B. rectangle

C. rhombus

D. trapezoid
3 Millicent’s age in years is twice the sum of her sister’s age and 3. If \( x \) represents her sister’s age, which expression could be used for Millicent’s age?

A. \( 2x + 3 \)
B. \( 2x - 3 \)
C. \( 2(x + 3) \)
D. \( 3(x + 2) \)

4 Samuel has a bowl of fruit containing 3 apples, 2 oranges, and 5 pears. If he randomly picks 1 piece of fruit from the bowl, what is the probability it will be a pear?

A. 71%
B. 50%
C. 33%
D. 20%

5 Natalie drew this figure on a piece of paper.

If \( \triangle TAP \sim \triangle TED \), what is the value of \( x \)?

(Note: This figure is not drawn to scale.)

A. 36
B. 24
C. 21
D. 15
Mark, a security guard, paid a fingerprinting and application fee of $50 to work 3 days at a local carnival. The carnival will pay him $150 per day. Which graph represents how much Mark can earn on the carnival job minus the fingerprinting and application fee?
7 A truck driver must drive to cities A, B, C, D, and E, as shown below, by traveling the shortest distance possible and not visiting the same city twice.

If the driver can start at any city, how far will he drive? (Note: The numbers on the map represent miles.)

A. 21 miles
B. 22 miles
C. 23 miles
D. 24 miles

8 Mr. Johnson and his students are playing a math game that uses the order of operations. To play the game, Mr. Johnson gives his students 5 numbers. Using the order of operations, each student takes these numbers and makes them equal a number that Mr. Johnson chooses. Today, the numbers for the game are 4, 6, 8, 12, and 15. Using these numbers only once, the students are to create an expression that equals 11. Which student expression wins today’s game?

A. $15 - \frac{12}{4} \ (-8 - 6)$
B. $6 + 4 \times 8 - 15 - 12$
C. $8 - 6 \times 4 + 15 - 12$
D. $\frac{12 - 4}{8} + 15 - 6$
A restaurant had a total of $T$ identical tables. The maximum number of customers, $C$, who could be served at one time was given by the formula $C = 4T$. The manager has changed the restaurant so that the maximum number of customers who can be served at one time is now given by the formula $C = 6T$. If the number of tables is the same, how has the restaurant been changed?

A. The maximum number of customers at each table has been increased by 2.
B. The maximum number of customers at each table has been increased by 6.
C. The maximum number of customers who can be served at one time has been increased by 2.
D. The maximum number of customers who can be served at one time has been increased by 6.

Mr. Hernandez wants to tile his patio with rectangular tiles, each measuring 3 inches by 4 inches. Which of the following represents the least number of tiles he can use if the patio is a square measuring 3 feet on each side?

A. 36
B. 72
C. 108
D. 144

Cori rides her bicycle for exercise. She rode 0.72 mile on Saturday and 0.85 mile on Sunday. About what portion of a mile did Cori ride on Saturday?

A. 85%
B. \( \frac{2}{7} \)
C. \( \frac{17}{20} \)
D. \( \frac{3}{4} \)
12 Four friends are playing a game with 4 different spinners. Sam has a spinner with 3 equal sections numbered 1–3. Ricki has a spinner with 5 equal sections numbered 1–5. Jesse has a spinner with 6 equal sections numbered 1–6. Frederick has a spinner with 8 equal sections numbered 1–8. Everyone spins at the same time. The scoring is 10 points for an odd number and 5 points for an even number. Who has the best chance of getting the highest score?

A. Sam  
B. Ricki  
C. Jesse  
D. Frederick

13 Janine is preparing to paint her kitchen. Before purchasing paint, she measures each wall to calculate its area. Which unit of measurement is most appropriate to use for determining the area of her kitchen walls?

A. ft  
B. ft²  
C. yd  
D. yd³

14 A self-counting sequence has 1 copy of 1, 2 copies of 2, and so on, as shown.

{1, 2, 2, 3, 3, 3, 4, 4, 4, 4, 5 . . . }

What is the 30th term in this self-counting sequence?

A. 6  
B. 7  
C. 8  
D. 9
15 Alexander’s Toy Shop has a window display of various action figures. As Tony looks at this window display, he notices that the action figures come in 2 different sizes, 2 different genders, 2 different skin tones, 2 different hair colors, and 2 different outfits. If there are \(2^5\) combinations of action figures, what is the maximum number of different action figures that could appear in the window display?

A. 5
B. 10
C. 25
D. 32

16 Maria is on a tour and wants to visit historic cities at Points X, W, F, and V, which are shown on the map below.

![Map with distances](image)

Figure is not drawn to scale.

How many miles will she travel if she visits each city and completes her total trip in the shortest distance possible? (Note: The numbers on the map represent kilometers.)

A. 15.5 km
B. 16 km
C. 16.5 km
D. 17 km
17 Ted is going to run a short marathon. The length of the racecourse is 2,100 meters. When Ted runs, he travels about 70 centimeters with each step. How many steps will Ted take during the race?

A. 30
B. 300
C. 3,000
D. 30,000

18 Phyllis put $1,000 in the bank and received 10% in compound interest at the end of the year. Now she has $1,100. Which formula describes how much she will have at the end of next year?

A. next = now + 100
B. now = next × 1.10
C. next = now + 1,000
D. next = now × 1.10

19 Armen goes camping twice a year. Planning ahead, Armen graphed where he will pitch the tent on his next camping trip. The four corners of the tent are labeled A, B, C, and D on the coordinate grid below.

Which ordered pair represents the coordinates of Point A if Armen decides to translate the base of the tent down 3 units?

A. (3, –1)
B. (–1, 3)
C. (3, 5)
D. (0, 2)
20. The sum of two numbers is 16, as shown by the equation $x + y = 16$. Which graph best represents this equation?

A. 

B. 

C. 

D. 

21. Rodney has 4 different sports posters for his room, all of which are framed. He wants to hang only 3 of the posters at any one time. How many different ways can Rodney hang the posters?

A. 7
B. 10
C. 12
D. 24

22. Julia is filling balloons with air. If 6.25% of the balloons burst from too much air, which fraction of the balloons burst?

A. $\frac{1}{16}$
B. $\frac{5}{8}$
C. $6\frac{1}{4}$
D. $62\frac{1}{2}$
Jenny wrote the following expression in her notebook.

\[-7 \cdot (-7) \cdot (-7) \cdot (-7) \cdot y \cdot y + 3 \cdot 3 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot x \cdot x\]

**Part A**
What is the value of the expression if \(x = 1\) and \(y = 2\)? Show all your work.

**Part B**
Show how Jenny can correctly rewrite this expression using exponents. Explain why the value of the expression can never be negative.

**Part C**
Rewrite the following expression as the product of 3 prime numbers with exponents.

\[625 \cdot 64 \cdot 243\]