

**FILE A – For Optional Classroom Use as a Practice Test**

Session 1A—Reading Practice Test..... A-2

Session 1B—Reading Practice Test..... A-7

Session 2A—Mathematics  
(Calculator Not Allowed) Practice Test ..... A-11

Session 2B—Mathematics  
(Calculator Allowed) Practice Test..... A-13

Session 3A—Science and Technology Practice Test ..... A-19

[Back to Table of Contents](#)

# **Session 1A—Reading Practice Test**

# ENGLISH LANGUAGE ARTS: READING — SESSION 1A

This practice session has two reading selections, seven multiple-choice questions, and two constructed-response questions. Read each selection and answer the questions about it in the spaces provided in your practice test answer booklet.

Due to copyright restrictions, we are unable to reproduce the reading selection for the following four items.

“To a Daughter Leaving Home”  
from The Imperfect Paradise by Linda Pastan.  
Published by W. W. Norton & Company, Inc.  
Copyright ©1988 by Linda Pastan.

This poem may be easily accessed for free on the “Poetry 180” web site at <http://www.loc.gov/poetry/180/075.html>.

PLEASE GO ON TO THE NEXT PAGE →

Choose the best answer for each multiple-choice question. Fill in the bubble next to your answer choices for questions 1 through 3 in the spaces provided on page 2 of your practice test answer booklet.

1. In line 3, the word **loping** refers to the
  - A. narrator.
  - B. bicycle.
  - C. daughter.
  - D. path.
  
2. In lines 15 and 16, the narrator says that her daughter “grew smaller, more breakable.” This phrase shows the narrator’s
  - A. confusion.
  - B. excitement.
  - C. concern.
  - D. pride.
  
3. In lines 15 through 24, the narrator suggests the daughter is riding faster to emphasize the
  - A. daughter’s desire for independence.
  - B. mother’s difficulty in running beside her.
  - C. daughter’s fear of falling off her bicycle.
  - D. mother’s skill in teaching her daughter.

Write your answer to constructed-response question 4 in the space provided on page 2 of your practice test answer booklet.

4. In the poem “To a Daughter Leaving Home,” the narrator describes her feelings about teaching her daughter to ride a bicycle. Explain how the narrator uses this incident to reveal her feelings about her daughter leaving home. Use specific examples from the poem to support your answer.

PLEASE GO ON TO THE NEXT PAGE →

*Learn how to make better photographs by following the tips offered by a famous photographer. Read the article and then answer the questions that follow.*

Jay Dickman is a professional freelance photographer. His photographic assignments have included six Super Bowls, the Olympic Games, trips down the Amazon River, and cruising under the Arctic ice on a U.S. Navy nuclear submarine. He has always brought back award-winning images. In this article, Jay Dickman explains how you can take great photos.

## **Picture Perfect**

*Jay Dickman*

Unfortunately, we are unable to reproduce the reading selection for the following five items, due to copyright restrictions. However, the selection can be found using the reference information below.

Excerpt from “Picture Perfect” by Jay Dickman  
as it appeared in *Boys’ Life*, June 2002.

Published by Boys Scouts of America.

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Choose the best answer for each multiple-choice question. Fill in the bubble next to your answer choices for questions 5 through 8 in the spaces provided on page 3 of your practice test answer booklet.

- |   |  |
|---|--|
| <p>5. The <b>main idea</b> of the first paragraph is that</p> <ul style="list-style-type: none"><li>A. National Geographic sends photographers all over.</li><li>B. good photographs can be taken almost anywhere.</li><li>C. good photographs are often taken at photo ops.</li><li>D. National Geographic takes photos at school functions.</li></ul> <p>6. What is the author's most important goal when taking photographs?</p> <ul style="list-style-type: none"><li>A. to capture someone's attention</li><li>B. to use good equipment</li><li>C. to travel to unusual places</li><li>D. to receive numerous awards</li></ul> | <p>7. According to the article, what is the cause of most bad photographs?</p> <ul style="list-style-type: none"><li>A. the attitude of the photographer toward his or her subject</li><li>B. not using a flash to help reduce harsh shadows</li><li>C. not understanding the equipment being used</li><li>D. the distance of the photographer from his or her subject</li></ul> <p>8. Which phrase <b>best</b> summarizes the advice in tip 8, "Golden hour"?</p> <ul style="list-style-type: none"><li>A. avoid shadows</li><li>B. photograph at dawn</li><li>C. time of day matters</li><li>D. use your flash often</li></ul> |
|---|--|

Write your answer to constructed-response question 9 in the space provided on page 3 of your practice test answer booklet.

9. Using **three** of the author's "10 Top Tips," describe how photograph B could be improved. Explain why each tip you chose would improve photograph B.

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# **Session 1B—Reading Practice Test**

# ENGLISH LANGUAGE ARTS: READING — SESSION 1B

This practice session has one reading selection, eight multiple-choice questions, and one constructed-response question. Read the selection and answer the questions about it in the spaces provided in your practice test answer booklet.

*Read the article entitled “Fire Down Below” and then answer the questions that follow.*

## **Fire Down Below**

*A. T. McPhee*

Unfortunately, we are unable to reproduce the reading selection for the following five items, due to copyright restrictions. However, the selection can be found using the reference information below.

Excerpt from “Fire Down Below” by A. T. McPhee as it appeared in *Current Science*, October 2002.

Published by Weekly Reader Corporation.

Copyright © 2002 by Weekly Reader Corporation.

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Choose the best answer for each multiple-choice question. Fill in the bubble next to your answer choices for questions 10 through 17 in the spaces provided on page 4 of your practice test answer booklet.

10. What is the **main** purpose of the first three paragraphs?
- A. to tell about the dangers of lightning strikes
  - B. to introduce the subject of underground fires
  - C. to talk about some causes of major fires
  - D. to provide news about Glenwood Springs

11. According to the article, what is the **most** common cause of fires in the West?
- A. coal mines
  - B. careless people
  - C. arson
  - D. lightning

PLEASE GO ON TO THE NEXT PAGE →

12. Paragraph 5 **mainly** focuses on
- A. listing the primary causes of deadly underground fires.
  - B. explaining the conditions needed for spontaneous combustion.
  - C. comparing spontaneous combustion to other causes of fires.
  - D. describing the importance of knowing ignition temperatures.
13. According to the article, the oxygen necessary to feed underground fires comes from
- A. leftover ash.
  - B. oxidized coal.
  - C. rock layers.
  - D. cracks and crevices.
14. The **main** dangers of living above an underground fire are cave-ins and
- A. carbon monoxide poisoning.
  - B. low-temperature oxidation.
  - C. carbon dioxide poisoning.
  - D. spontaneous combustion.
15. In paragraph 13, the mention of hundreds of underground fires in China **mainly** serves to
- A. persuade the reader to help eliminate global warming.
  - B. warn the reader about the dangers of traveling to China.
  - C. emphasize how dangerous these fires are to the environment.
  - D. explain how carbon dioxide is released into the atmosphere.
16. Which of the following would a thermal imaging unit be **most** useful in locating?
- A. a major deposit of coal inside rock layers
  - B. a train car loaded with coal on a deserted track
  - C. a burning coal seam beneath a range of foothill mountains
  - D. an underground lake surrounded by coal mines
17. Based on information in the article, what is **most likely** true of coal seam fires?
- A. They burn slowly but very steadily.
  - B. They burn quite slowly but have little smoke.
  - C. They burn fast and can be very hot.
  - D. They burn for decades and are easily put out.

**Write your answer to constructed-response question 18 in the space provided on page 4 of your practice test answer booklet.**

18. In your own words, explain what causes underground fires and how they can be extinguished. Use information from the article to support your answer.

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**Session 2A—Mathematics  
(Calculator Not Allowed) Practice Test**

# MATHEMATICS (CALCULATOR NOT ALLOWED) — SESSION 2A

This practice session has three multiple-choice questions and one short-answer question.

Choose the best answer for each multiple-choice question. Fill in the bubble next to your answer choices for questions 1 through 3 in the spaces provided on page 5 of your practice test answer booklet.

Use the line graph below to answer question 1.



1. Which inequality describes this graph?

- A.  $x > -2$
- B.  $x \geq -2$
- C.  $x < -2$
- D.  $x \leq -2$

2. Melissa's credit card company charges  $1\frac{1}{2}\%$  monthly interest on each end-of-month balance. How much interest will Melissa be charged if her end-of-month balance is \$200?

- A. \$ 1.50
- B. \$ 3.00
- C. \$15.00
- D. \$30.00

3. It takes 3 cups of flour to make 2 dozen cookies. How much flour is needed to make 7 dozen cookies?

- A.  $4\frac{2}{3}$  cups
- B. 6 cups
- C.  $10\frac{1}{2}$  cups
- D. 12 cups

Write your answer to short-answer question 4 in the box provided on page 5 of your practice test answer booklet. Be sure to answer and label all parts (a and b) of the question.

4. a. List all of the whole-number factors of 12.  
b. Circle the factors of 12 that are prime numbers.

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**Session 2B—Mathematics  
(Calculator Allowed) Practice Test**

# MATHEMATICS (CALCULATOR ALLOWED) — SESSION 2B

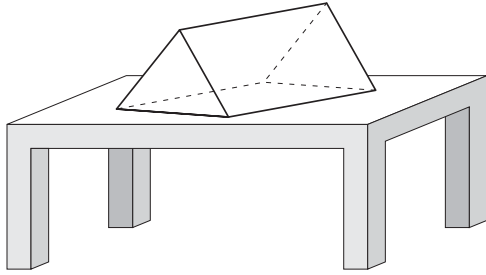
This practice session contains thirteen multiple-choice questions, one short-answer question, and two constructed-response questions.

Choose the best answer for each multiple-choice question. Fill in the bubble next to your answer choices for questions 5 through 17 in the spaces provided on page 6 of your practice test answer booklet.

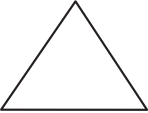



5. Mark made a presentation to his middle school principal asking him to increase the number of fun nights offered by the school. Which argument in favor of this request is the **least** biased?
- A. "80% of the eighth graders I asked want more fun nights."
  - B. "All my friends and I want the change."
  - C. "I surveyed a random sample of students, and 80% would like more fun nights."
  - D. "Players on the basketball team want more fun nights."
6. Which expression represents a number that is three less than twice  $d$ ?
- A.  $3 + 2d$
  - B.  $3 - 2d$
  - C.  $2d - 3$
  - D.  $\frac{d}{2} - 3$
7. The population of a country is estimated at  $1.04 \times 10^9$  people. Which number is closest to  $1.04 \times 10^9$ ?
- A. 1 million
  - B. 100 million
  - C. 1 billion
  - D. 10 billion
8. Which expression shows the prime factorization of 40?
- A.  $4 \times 10 \times 1$
  - B.  $8 \times 5$
  - C.  $2 \times 3 \times 5$
  - D.  $2^3 \times 5$
9. Which ordered pair satisfies the following equation?
- $$y = 4x - 3$$
- A. (0, -3)
  - B. (3, 0)
  - C.  $(0, \frac{-3}{4})$
  - D.  $(\frac{-3}{4}, 0)$

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10. Lisa placed a **triangular right prism** on a table as shown below.




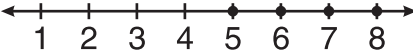


If she traces around the face of the prism that touches the table, what shape will she have drawn?

- A. 
- B. 
- C. 
- D. 

11. Jake read in the newspaper that one U.S. dollar was worth \$1.53 in Canadian money. If  $n$  stands for a number of U.S. dollars, which equation gives the value,  $v$ , of those dollars in Canadian money?

- A.  $v = n + 1.53$
- B.  $v = n - 1.53$
- C.  $v = \frac{n}{1.53}$
- D.  $v = 1.53n$

12. Which graph shows the solution for the inequality  $x > 4$  when  $x$  is a real number?

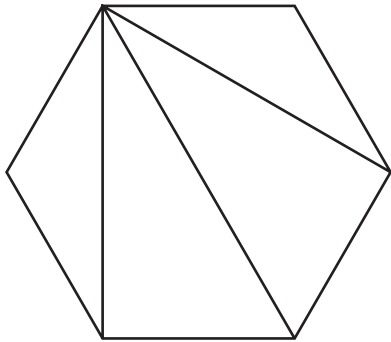
- A. 
- B. 
- C. 
- D. 

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13. Which equation when graphed is not a straight line (is nonlinear)?

- A.  $y = 2x^2 + 4$
- B.  $y = 3x$
- C.  $y = 2x + 5$
- D.  $y = 4$

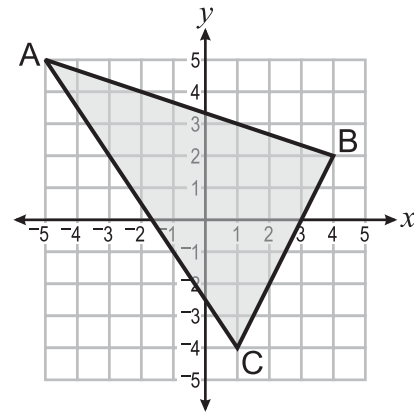
14. The figure below is a regular hexagon with diagonals drawn from one of its vertices.



What kinds of triangles are formed by the diagonals and the sides of this regular hexagon?

- A. 4 acute triangles
  - B. 4 obtuse triangles
  - C. 2 obtuse and 2 right triangles
  - D. 2 obtuse and 2 acute triangles
15. Joelyn has decided to save \$12 a week to buy a stereo system that costs \$125. Which expression shows how much money she will still have to save after  $n$  weeks?
- A.  $125 + 12n$
  - B.  $125 - 12n$
  - C.  $(125 + 12)n$
  - D.  $(125 - 12)n$

Use the graph below to answer question 16.



16. Which of the following are coordinates of a point located on a side of triangle ABC?

- A. (0,3)
  - B. (-3,2)
  - C. (3,1)
  - D. (-2,2)
17. At Handy Rentals, a car rents for \$45 per day plus 20 cents per mile driven. If  $c$  is the cost in dollars of the rental and  $m$  is the number of miles the car is driven, which equation represents the cost for renting and driving that car for one day?
- A.  $c = 45 + 0.20m$
  - B.  $c = 45m + 20$
  - C.  $m = 45c + 0.20$
  - D.  $m = 45 + 0.20c$

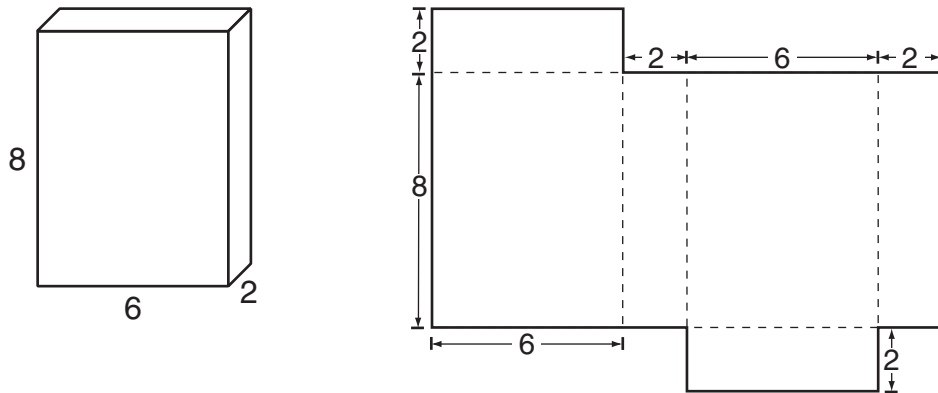
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Write your answer to short-answer question 18 in the box provided on page 6 of your practice test answer booklet.

18. Between 1770 and 1780 the population of Maine **increased** by about 60%. If the population in 1770 was 31,300, what was the population (to the nearest hundred) in 1780? Show or describe the steps you used to find your answer.

Write your answers to constructed-response questions 19 and 20 in the boxes provided on pages 6 and 7 of your practice test answer booklet. Be sure to answer and label all parts (a, b, c, etc.) of the questions.

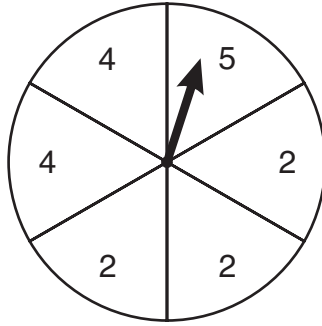
19. The pattern (without overlaps) of a box is shown below. The dimensions are given in inches.



- a. How many cubic inches of sugar can this box hold? Show your work or explain how you found your answer.
- b. If the cardboard costs \$0.0004 per square inch, what is the cost of the cardboard for one box? Show your work or explain how you found your answer.

PLEASE GO ON TO THE NEXT PAGE →

The spinner shown below has six equal sections. Use the spinner to answer question 20.



20. Bonnie knows that probability can be represented as a fraction between and including zero and one.
- What is the probability of this event: the spinner lands on a section labeled 4?
  - What does it mean to have a probability of zero?
  - Describe a spinner event that would have a probability of zero.
  - What does it mean to have a probability of one?
  - Describe a spinner event that would have a probability of one.

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**Session 3A**  
**Science and Technology Practice Test**

# SCIENCE AND TECHNOLOGY — SESSION 3A

This practice session contains sixteen multiple-choice questions and three constructed-response questions.

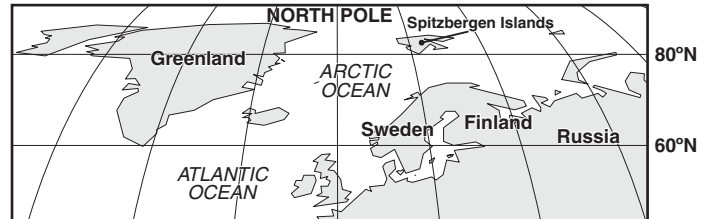
Choose the best answer for each multiple-choice question. Fill in the bubble next to your answer choices for questions 1 through 16 in the spaces provided on page 8 of your practice test answer booklet.

1. Diane wanted to test how well three antiseptic cleaning solutions stop bacterial growth. She soaked paper disks in each of the three solutions and placed each of them on a petri dish with bacteria growing on it.

After 48 hours Diane observed a clear area around the disks, indicating no growth of bacteria. She concluded that each of the solutions stopped bacterial growth. Her conclusion might not be correct because her experiment

- A. did not include a control.
  - B. was too long.
  - C. was contaminated.
  - D. was too complicated.
2. Which statement is an opinion?
- A. Fossils are found mostly in sedimentary rocks.
  - B. Many dinosaur fossils have been found in the state of Montana.
  - C. Scientists use fossils to show how organisms have changed over time.
  - D. Fossils found in South America are better than those found in Africa.

Use the map below to answer question 3.

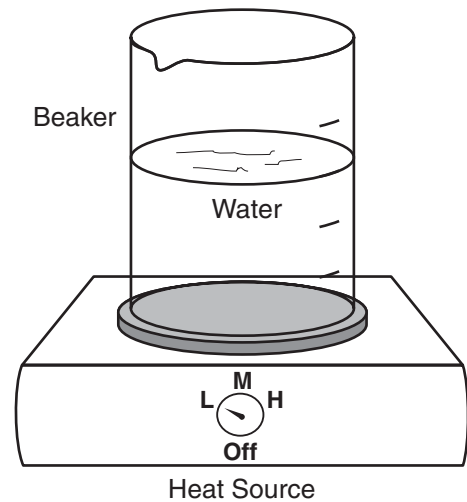


3. Which of the following is the **best** explanation scientists could give for the existence of warm-water coral fossils on Spitzbergen Islands?
- A. Many years ago tourists left the fossils on the islands.
  - B. Scientists using inaccurate information identified the fossils.
  - C. When the coral was alive, the islands were in warmer water.
  - D. The fossils are not real; they are just rocks with marks that look like coral.
4. Glenn is looking at a diagram that illustrates an organ system in the human body, but the system is not identified. He claims that it is the endocrine system. Glenn is correct if the diagram includes
- A. a heart connected to blood vessels.
  - B. a brain connected to the spinal cord and nerves.
  - C. an air passage to the lungs and a pair of lungs.
  - D. glands such as the pituitary and thyroid.

PLEASE GO ON TO THE NEXT PAGE →

5. Which of the following determines the seasons on Earth?
- A. distance from the Sun to Earth
  - B. distance from Earth to the Moon
  - C. reflection of the Sun's rays off the Moon
  - D. directness of the Sun's rays hitting Earth
6. In the mid-1800s, Louis Pasteur proved the germ theory of disease. The impact of his work saved millions of human lives. Which invention made Pasteur's work possible?
- A. the telescope
  - B. the microscope
  - C. the endoscope
  - D. the spectroscope
7. A student with a cold virus sneezes during class. How might this cold virus affect the classroom environment?
- A. It could contaminate the entire environment.
  - B. It could make other viruses more infectious.
  - C. It could increase bacterial infections.
  - D. It could stay active in the classroom for two months.

Use the picture below to answer question 8.

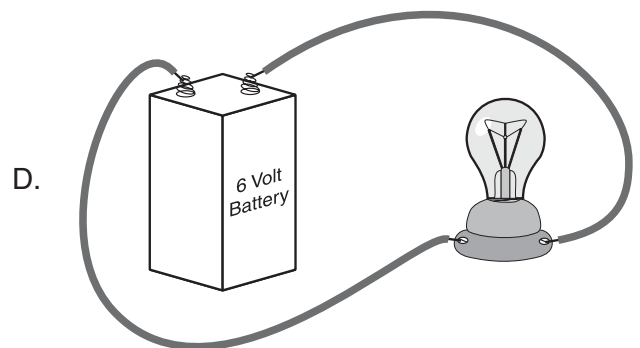
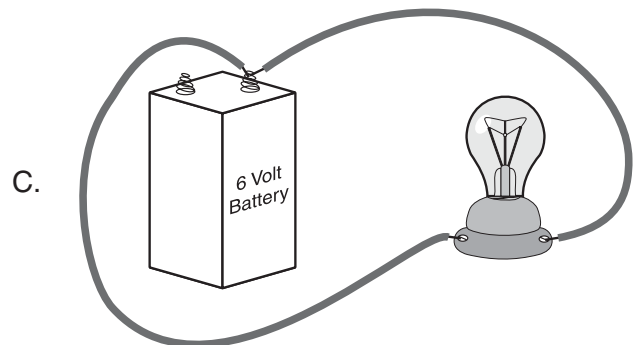
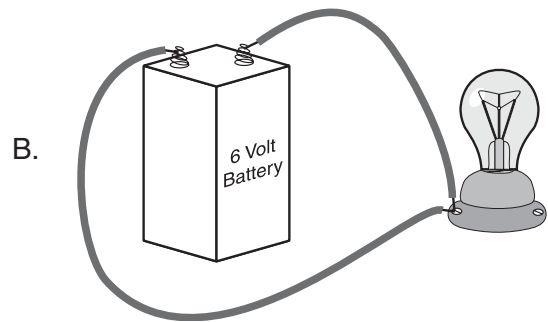
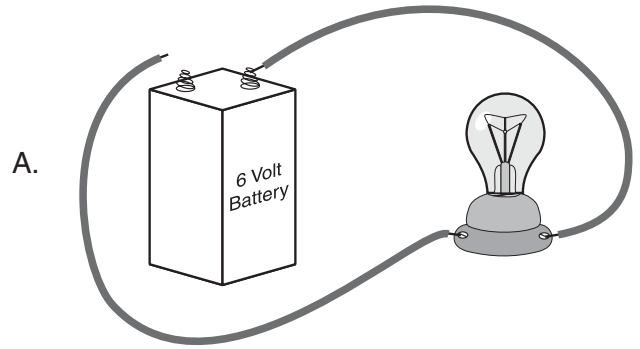


8. Which statement **best** describes the motion of the water molecules when heat is added to the beaker?
- A. The molecules speed up.
  - B. The molecules slow down.
  - C. The molecules move closer together.
  - D. The molecules do not change their motion.
9. Which tool can be used to see the atoms that make up matter?
- A. a light microscope
  - B. a refracting telescope
  - C. a reflecting telescope
  - D. an electron microscope

PLEASE GO ON TO THE NEXT PAGE →

10. Humans are more like reptiles than like insects because humans and reptiles
- have a spinal column.
  - are warm-blooded.
  - have similar vision.
  - are externally fertilized.
11. Which organism is **most closely** related to *Ursus arctos horribilis*?
- Ursus americanus*
  - Canis lupus arctos*
  - Carcinus maenas*
  - Puma concolor*
12. Which evidence would be **most** helpful to scientists in determining the age of Earth?
- a comparison of Earth's composition to other planets' compositions
  - soils, fossils, and remnants of mountains
  - sediments, minerals, soils, and size of rocks
  - fossil records, rock records, and layers of Earth
13. Which evidence would a geologist find useful in determining the age of rock layers?
- the pressure reading between rock layers
  - the index fossil in each rock layer
  - the density of materials in each rock layer
  - the temperature of each rock layer

14. A student wants to build a simple circuit that will light a bulb from a battery. Which diagram shows a completed circuit in which the bulb will light?



PLEASE GO ON TO THE NEXT PAGE →

15. Which distance is **most likely** described in light-years?

- A. distance to the Moon
- B. distance to a galaxy
- C. distance to Australia
- D. distance to an Earth satellite

16. The ways in which scientists share information have changed dramatically in recent years. If a scientist discovers a fossil and wants to conduct research on the fossil, a quick way to start would be to

- A. perform an Internet search for information.
- B. check out library books on related topics.
- C. send a letter to research scientists requesting information.
- D. post an advertisement for information in scientific journals.

Write your answers to constructed-response questions 17 through 19 in the boxes provided on pages 8 and 9 of your practice test answer booklet. Be sure to answer all parts of question 18.

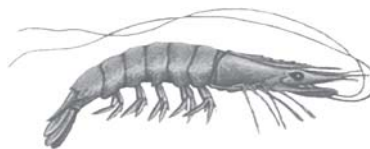
Use the pictures below to answer question 17.



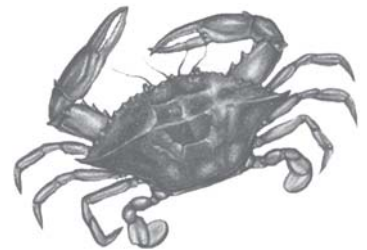
**tick**



**scorpion**



**shrimp**



**blue crab**

17. Each of these organisms belongs to the same group in the scientific classification system. Give **three** convincing arguments to support the idea that these organisms are closely related. Be sure to include structures and physical characteristics of the organisms in your arguments.

PLEASE GO ON TO THE NEXT PAGE →

Use the list of substances below to answer question 18.

- water
- table salt (NaCl)
- pure gold ring
- pizza
- air
- carbon dioxide (dry ice)
- nitrogen

18. a. Categorize each substance as an element, a compound, or a mixture.  
b. Explain how each substance belongs in the category you chose.

19. A large forest is bought for a housing development. Before development begins, the forest
- supports fifty white-tailed deer,
  - has one large lake and four streams, and
  - contains five species of trees.

Describe and explain **three** ways that building this housing development will affect the deer population.

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# ACKNOWLEDGMENTS

**The Maine Department of Education wishes to acknowledge and credit the following authors and publishers for the use of their work in the Maine Educational Assessment.**

“Picture Perfect” (pp. A-5–A-6) by Jay Dickman as it appeared in *Boys’ Life*, June 2002. Published by the Boy Scouts of America. Copyright © 2002 by the Boy Scouts of America.

“Fire Down Below” (pp. A-8–A-9) by A.T. McPhee as it appeared in *Current Science*, October 2002. Published by Weekly Reader Corporation. Copyright © 2002 by Weekly Reader Corporation.

Sources of the exercises selected for this test include: Maine State Advisory Committees, Measured Progress, and previous Maine state testing programs.