

#2

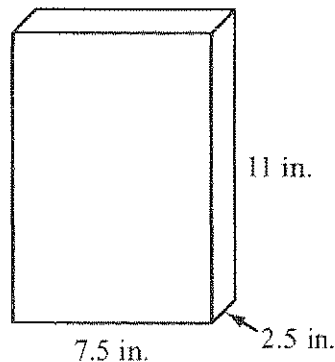
Question #	Question Format and Vocabulary	Content	Skill(s)

Question 22 is an open-response question.

- **BE SURE TO ANSWER AND LABEL ALL PARTS OF THE QUESTION.**
- **Show all your work (diagrams, tables, or computations) in your Student Answer Booklet.**
- **If you do the work in your head, explain in writing how you did the work.**

Write your answer to question 22 in the space provided in your Student Answer Booklet.

- 22 Mora bought a box of cereal that was a rectangular prism with a length of 7.5 inches, a width of 2.5 inches, and a height of 11 inches, as shown below.



- What is the total number of vertices of Mora's cereal box? Show or explain how you got your answer.
- What is the total number of faces of Mora's cereal box? Show or explain how you got your answer.
- In your Student Answer Booklet, draw a net (flat pattern) that can be folded to form a box with the same dimensions as Mora's cereal box. Be sure to label your drawing of the net with the lengths, in inches, of the line segments.

Mathematics

SESSION 2

You may use your reference sheet and MCAS ruler during this session.
You may use a calculator during this session.



DIRECTIONS

This session contains fourteen multiple-choice questions and three open-response questions. Mark your answers to these questions in the spaces provided in your Student Answer Booklet.

- 23 What is the value of the expression below when $x = 3$ and $y = 5$?

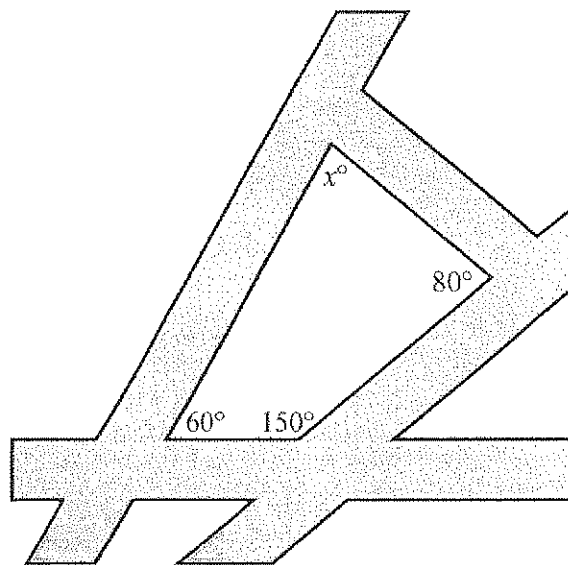
$$2x^2 + 3y$$

- A. 27
- B. 33
- C. 51
- D. 53

- 24 Tuan answered 20 customer service calls in 3 hours. At this rate, how many customer service calls can Tuan answer in 7.5 hours?

- A. 45
- B. 50
- C. 60
- D. 80

- 25 Intersecting sidewalks surround a playground shaped like a quadrilateral, as shown in the diagram below.



Based on the angle measures in the diagram, what is the value of x ?

- A. 70
- B. 80
- C. 120
- D. 150

- 23 Why is Travis about to cry in paragraph 25?
- A. He is sad that Burn Sanderson is leaving.
 - B. He is sad that Little Arliss acted so badly.
 - C. He is happy that Mama is making a big meal.
 - D. He is happy that his family will keep Old Yeller.

- 24 At the end of the excerpt, why does Burn Sanderson **most likely** give Old Yeller to the Coates family?
- A. He no longer has any use for Old Yeller.
 - B. He dislikes the way Old Yeller raids his camp.
 - C. He realizes how much the family loves Old Yeller.
 - D. He is worried that the family is unsafe without Old Yeller.

- 25 Reread the sentences in paragraphs 7 and 8. What is the function of the dash in paragraph 7?
- A. to show that Travis is thinking
 - B. to show that Travis is speechless
 - C. to show that Mama silences Travis
 - D. to show that Mama sends Travis away

- 26 Read the sentences from paragraph 9 in the box below.

Mama's voice was too sharp. I knew I was whipped.

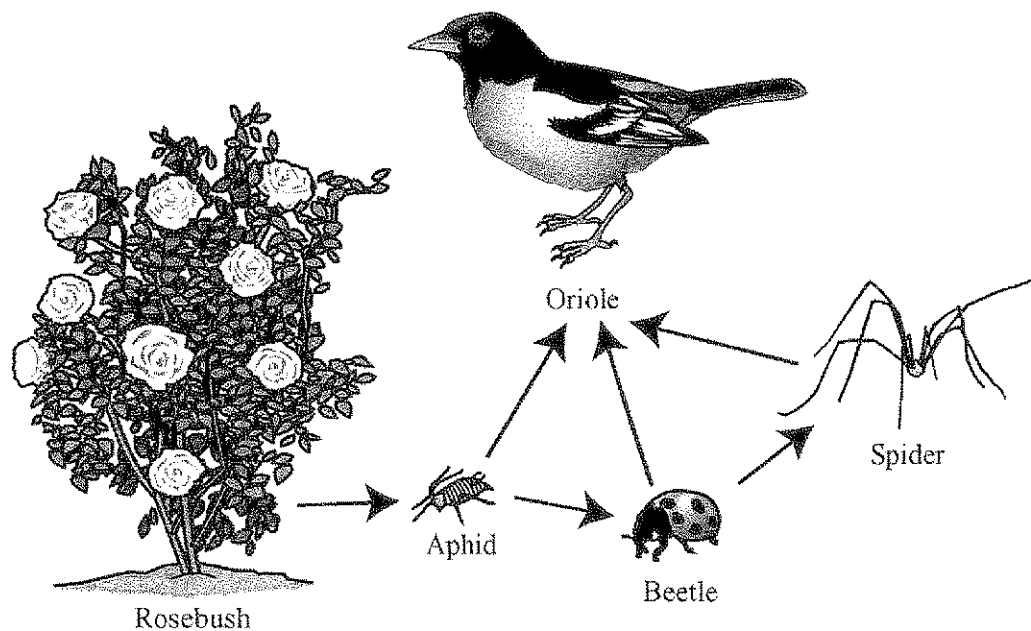
- What does *whipped* mean in the sentence?
- A. hurt
 - B. sorry
 - C. defeated
 - D. understood

Questions 37 through 39 are open-response questions.

- BE SURE TO ANSWER AND LABEL ALL PARTS OF EACH QUESTION.
- Show all your work (diagrams, tables, or computations) in your Student Answer Booklet.
- If you do the work in your head, explain in writing how you did the work.

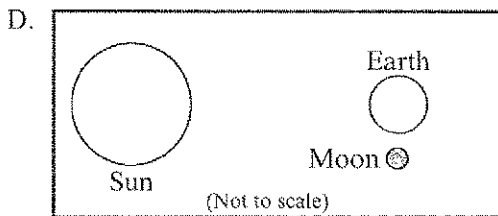
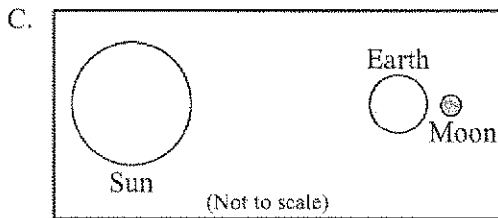
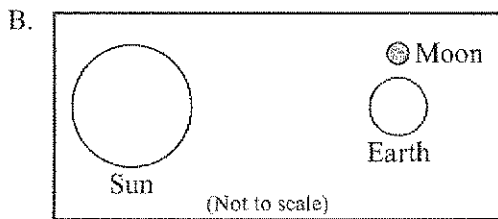
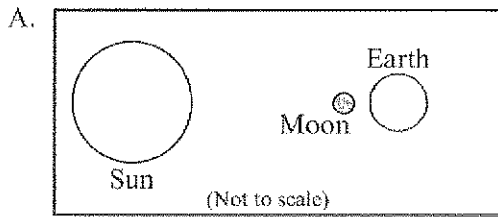
Write your answer to question 37 in the space provided in your Student Answer Booklet.

- 37 The organisms in an ecosystem interact in many ways to survive. For example, a rosebush, aphids, beetles, spiders, and orioles all interact in a rosebush ecosystem. The diagram below shows how these organisms interact in a partial food web.



- Identify the producer organism in this food web. Explain the reasoning for your answer.
- Identify the primary consumer organism in this food web. Explain the reasoning for your answer.
- Describe what would **most likely** happen to each of the other organisms in the food web if the beetle population were suddenly destroyed. Explain the reasoning for your answer for each organism.

25 Which of the following diagrams best shows the relative positions of Earth, the Moon, and the Sun during a lunar eclipse?



26 Which of the following best describes the number of chromosomes in a normal human liver cell?

- A. 23 pairs of chromosomes
- B. 46 different types of chromosomes
- C. 46 male chromosomes and 46 female chromosomes
- D. 23 original chromosomes and 23 duplicate chromosomes

27 Which of the following best describes a role of mushrooms in ecosystems?

- A. capturing energy from sunlight
- B. consuming living plant material
- C. taking energy from animal hosts
- D. breaking down dead plant material

28 Which of the following tools is most useful for tightening a small mechanical fastener?

- A. chisel
- B. pliers
- C. sander
- D. saw

Mark your answers to questions 7 through 9 in the spaces provided in your Student Answer Booklet.

- 7 The map titled “Australia: Industry Map” is **most** useful for
- A. finding rivers in Australia.
 - B. studying the economy of Australia.
 - C. predicting the weather of Australia.
 - D. planning a camping trip in Australia.

- 8 The geography of western Australia **mostly** consists of
- A. tropical rain forests.
 - B. river valleys.
 - C. mountains.
 - D. deserts.

- 9 Which of the following describes the climate of Alice Springs?
- A. tropical
 - B. temperate
 - C. hot and arid
 - D. hot and semiarid

Write your answer to open-response question 10 in the space provided in your Student Answer Booklet.

- 10 Australia, which is both a country and a continent, has a number of geographic regions. The variety of Australia’s regions has affected its overall development.
- a. Describe where **most** of Australia’s population has settled and built major industries. Support your answer with information from the maps and your knowledge of Australian geography.
 - b. Explain how the physical features and climate of Australia have influenced its settlement patterns and economic development. Support your answer with information from the maps and your knowledge of Australian geography.