1 The percentage of gold in jewelry is measured in karats. The greater the percentage of gold in an object, the higher the number of karats. An 18-karat piece of jewelry contains 75% gold. Which of the following is closest to the number of karats in a piece of jewelry that contains 58% gold?

Mark your answer here: 1. Ⓐ Ⓑ Ⓒ Ⓓ

A. 10 karats

B. 12 karats

C. 14 karats

D. 24 karats

2 Greta is making soup and needs to buy broth. She is able to buy cans of broth in the four different sizes listed below.

Mark your answer here: 2. Ⓐ Ⓑ Ⓒ Ⓓ

- Can A costs $3.84 for 32 ounces.

- Can B costs $1.40 for 14 ounces.

- Can C costs $3.96 for 49.5 ounces.

- Can D costs $1.60 for 14.5 ounces.

Which can costs the **least** per ounce?

A. Can A

B. Can B

C. Can C

D. Can D

my*MCAS*.com

Printed from my*MCAS*.com.
All test items have been released to the public by the Massachusetts Department of Elementary and Secondary Education.

Name _____

3 A jet airplane travels 1200 miles in $2\frac{1}{2}$ hours. At this rate, how far will it travel in 3 hours?

Mark your answer here: 3. Ⓐ Ⓑ Ⓒ Ⓓ

A. 1000 miles

B. 1440 miles

C. 1800 miles

D. 3600 miles

4 Hector made a scale drawing of the front of a building.

Mark your answer here: 4. Ⓐ Ⓑ Ⓒ Ⓓ

- The front of the actual building is in the shape of a rectangle with a height of 21 feet and a width of 15 feet.

- The height of the building in Hector's drawing is 3.5 inches, and the width is 2.5 inches.

What scale factor did Hector use in his scale drawing?

A. 1 inch : 2 feet

B. 1 inch : 4.3 feet

C. 1 inch : 6 feet

D. 1 inch : 8.4 feet

5 Which of the following is closest to the value of $\sqrt{72}$?

Mark your answer here: 5. Ⓐ Ⓑ Ⓒ Ⓓ

A. 8.1

B. 8.5

C. 8.9

D. 9.3

6 Dan made an accurate scale drawing of the front of a building.

- The width of the building in Dan's scale drawing is 5 inches.
- The height of the building in his scale drawing is 3 inches.

If the actual width of the building is 100 feet, what is the actual height, in feet, of the building?

Write your answer here:

my**MCAS**.com

Printed from my**MCAS**.com.
All test items have been released to the public by the Massachusetts Department of Elementary and Secondary Education.

Directions: For the problem below, use a separate piece of paper to write your answers.
Your teacher will not count anything you write on this page.

---

7   Steve completed his research for a term paper and started writing a first draft. He asked Luisa to proofread the first draft.

a. Steve wrote 720 words of his first draft in 3 hours. What was the rate, in words per hour, at which Steve wrote? Show or explain how you got your answer.

b. Luisa can proofread 1200 words per hour. At this rate, what was the time, in hours, it took her to proofread 720 words? Show your work.

Steve's completed term paper has 6000 words on 20 pages. Each page contains an equal number of words.

c. Using your answer from part (a), what was the time, in hours, it took Steve to write 1 page? Show your work.

d. Luisa proofread all 20 pages of Steve's completed term paper at a rate of 1200 words per hour. What is this rate in **pages** per hour? Show your work.

my*MCAS*.com

Printed from my*MCAS*.com.
All test items have been released to the public by the Massachusetts Department of Elementary and Secondary Education.