

Mathematics

SESSION 1

You may use your reference sheet and MCAS ruler during this session.
You may **not** use a calculator during this session.



DIRECTIONS

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

- 1 In the equations below, each shape stands for the same number every time that it appears.

$$\square + 6 = 18$$

$$\triangle \times 3 = \square$$

If both of these equations are true, what is the value of \triangle ?

- A. 4
- B. 8
- C. 12
- D. 36

- 2 Marcus does sit-ups every night for his exercise program. Each week, he increases the number of sit-ups he does every night, as shown in the table below.

Sit-Ups Done Each Week

Week	Sit-Ups Every Night
1	15
2	30
3	45
4	?

Based on the pattern shown in the table, what is the total number of sit-ups that Marcus will do every night during week 4?

- A. 50
- B. 55
- C. 60
- D. 65

- 3 The running log below shows how many miles Jason ran Monday through Friday of last week.

Jason's Running Log

Day	Miles
Monday	5
Tuesday	6
Wednesday	2
Thursday	6
Friday	1

What is the mean (average) number of miles he ran each day for the days shown in the running log?

- A. 2
B. 4
C. 5
D. 6
- 4 Ms. Reed travels a total of 78 miles each day that she goes to work. During July, she went to work 21 days.
- Which of the following expressions has a value that is closest to the total number of miles Ms. Reed traveled to work in July?
- A. 80×30
B. 70×20
C. 80×20
D. 75×20