# 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** Jill wrote the number pattern shown below.

1, 5, 25, 125, 625, . . .

Which of the following could be the rule for determining the next number in Jill's pattern?

A. add 4

B. add 20

C. multiply by 5

D. multiply by 25

**2** Some adult hummingbirds weigh as little as 0.06 ounce. What is the value of the 6 in 0.06?

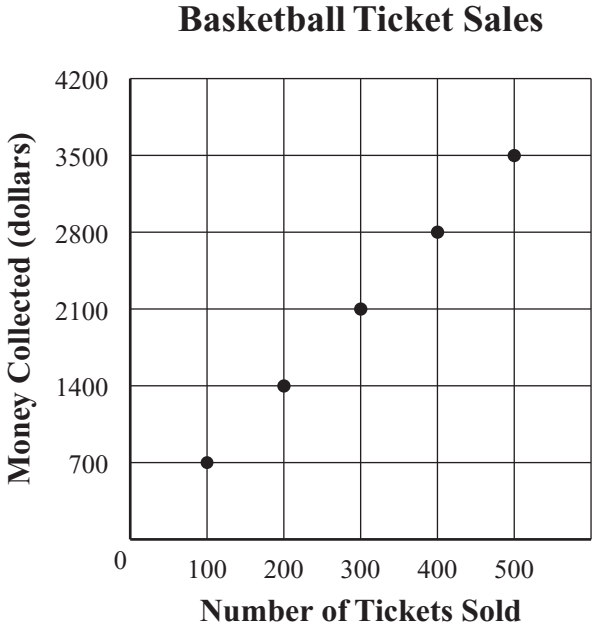
A. six

B. six tenths

C. six hundredths

D. six thousandths

**3** The graph below shows the money collected by selling different numbers of tickets to a college basketball game.




Each ticket is the same price. Based on the data in the graph, what is the price of 1 ticket to the basketball game?

A. $7

B. $10

C. $17

D. $70

38 A contest is being held at a school fair for fifth-grade and sixth-grade students.

- There are 40 fifth-grade students at the fair.
- There are 30 sixth-grade students at the fair.

Each student's name was written on one card and placed into a box. The principal will reach into the box and pick one card without looking. The student named on the card will be the winner of the contest.

What is the probability that the winner of the contest will be a sixth-grade student?

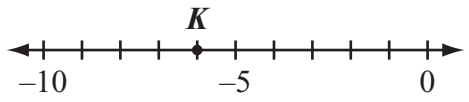
A. $\frac{1}{2}$

B. $\frac{3}{4}$

C. $\frac{3}{7}$

D. $\frac{1}{30}$

39 Which of the following best represents the location of point $K$ on the number line below?




A. $-1$

B. $-4$

C. $-6$

D. $-7$

# Grade 6 Mathematics
# Spring 2008 Released Items:
# Reporting Categories, Standards, and Correct Answers*

| Item No. | Page No. | Reporting Category | Standard | Correct Answer (MC/SA)* |
|---|---|---|---|---|
| 1 | 311 | *Patterns, Relations, and Algebra* | 6.P.1 | C |
| 2 | 311 | *Number Sense and Operations* | 6.N.2 | C |
| 3 | 311 | *Patterns, Relations, and Algebra* | 6.P.6 | A |
| 4 | 312 | *Number Sense and Operations* | 6.N.7 | A |
| 5 | 312 | *Measurement* | 6.M.1 | B |
| 6 | 312 | *Number Sense and Operations* | 6.N.4 | D |
| 7 | 313 | *Data Analysis, Statistics, and Probability* | 6.D.1 | B |
| 8 | 313 | *Patterns, Relations, and Algebra* | 6.P.3 | D |
| 9 | 313 | *Geometry* | 6.G.6 | A |
| 10 | 314 | *Patterns, Relations, and Algebra* | 6.P.5 | |
| 11 | 315 | *Data Analysis, Statistics, and Probability* | 6.D.2 | 52 |
| 12 | 315 | *Geometry* | 6.G.3 | $\overline{AD}$ |
| 13 | 316 | *Number Sense and Operations* | 6.N.8 | |
| 14 | 317 | *Patterns, Relations, and Algebra* | 6.P.4 | C |
| 15 | 317 | *Number Sense and Operations* | 6.N.13 | B |
| 16 | 317 | *Patterns, Relations, and Algebra* | 6.P.7 | A |
| 17 | 318 | *Data Analysis, Statistics, and Probability* | 6.D.3 | |
| 18 | 319 | *Patterns, Relations, and Algebra* | 6.P.1 | C |
| 19 | 319 | *Number Sense and Operations* | 6.N.15 | B |
| 20 | 319 | *Number Sense and Operations* | 6.N.16 | B |
| 21 | 320 | *Number Sense and Operations* | 6.N.3 | D |
| 22 | 320 | *Number Sense and Operations* | 6.N.5 | D |
| 23 | 320 | *Measurement* | 6.M.5 | C |
| 24 | 321 | *Patterns, Relations, and Algebra* | 6.P.4 | B |
| 25 | 322 | *Number Sense and Operations* | 6.N.8 | D |
| 26 | 322 | *Patterns, Relations, and Algebra* | 6.P.5 | A |
| 27 | 323 | *Geometry* | 6.G.4 | |
| 28 | 324 | *Patterns, Relations, and Algebra* | 6.P.2 | 9 |
| 29 | 324 | *Number Sense and Operations* | 6.N.9 | $4\frac{1}{4}$ hours |
| 30 | 325 | *Number Sense and Operations* | 6.N.5 | 38% |
| 31 | 326 | *Measurement* | 6.M.6 | |
| 32 | 327 | *Number Sense and Operations* | 6.N.1 | C |
| 33 | 327 | *Number Sense and Operations* | 6.N.9 | A |
| 34 | 327 | *Measurement* | 6.M.4 | A |
| 35 | 328 | *Geometry* | 6.G.9 | C |
| 36 | 328 | *Patterns, Relations, and Algebra* | 6.P.4 | D |
| 37 | 328 | *Data Analysis, Statistics, and Probability* | 6.D.3 | D |
| 38 | 329 | *Data Analysis, Statistics, and Probability* | 6.D.4 | C |
| 39 | 329 | *Number Sense and Operations* | 6.N.6 | C |

***** Answers are provided here for multiple-choice items and short-answer items only. Sample responses and scoring guidelines for open-response items, which are indicated by shaded cells, will be posted to the Department's Web site later this year.