

PRACTICE TEST

Mathematics

Grade 4

Student Name

School Name

District Name



Grade 4 Mathematics

SESSION 1

This session contains 6 questions.

You may **not** use a calculator during this session.



Directions

Read each question carefully and then answer it as well as you can. You must record all answers in your Practice Test Answer Document.

For some questions, you will mark your answers by filling in the circles in your Practice Test Answer Document. Make sure you darken the circles completely. Do not make any marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely.

For other questions, you will need to fill in an answer grid. Directions for completing questions with answer grids are provided on the next page.

If a question asks you to show or explain your work, you must do so to receive full credit. Write your response in the space provided in your Practice Test Answer Document. Only responses written within the provided space will be scored.

Directions for Completing Questions with Answer Grids

1. Work the question and find an answer.
2. Write your answer in the boxes at the top of the grid.
3. Print only one number or symbol in each box. Do not leave a blank box in the middle of an answer.
4. Under each box, fill in the circle that matches the number or symbol you wrote above. Make a solid mark that completely fills the circle.
5. Do not fill in a circle under an unused box.
6. If you need to change an answer, be sure to erase your first answer completely.
7. See below for examples on how to correctly complete an answer grid.

EXAMPLES

To answer 632 in a question, fill in the answer grid as shown below.

6	3	2			
○	○	○	○	○	○
0	0	0	0	0	0
1	1	1	1	1	1
2	2	●	2	2	2
3	●	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
●	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

A brick path has 10 rows of 4 bricks. What is the total number of bricks in the path?

Enter your answer in the box.

4	0				
○	○	○	○	○	○
0	●	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
●	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

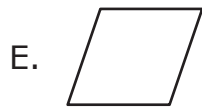
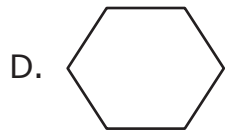
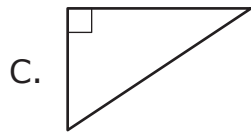
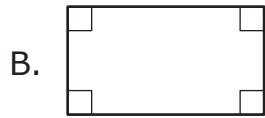
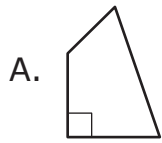
- 1 Jacob wrote the expression shown.

$$\frac{6}{10} + \frac{7}{100}$$

Which of the following is equivalent to the expression Jacob wrote?

- A. $\frac{6}{10} + \frac{7}{10}$
- B. $\frac{60}{10} + \frac{7}{100}$
- C. $\frac{60}{100} + \frac{7}{100}$
- D. $\frac{60}{100} + \frac{70}{100}$

2 Which **three** shapes appear to have at least two parallel sides?

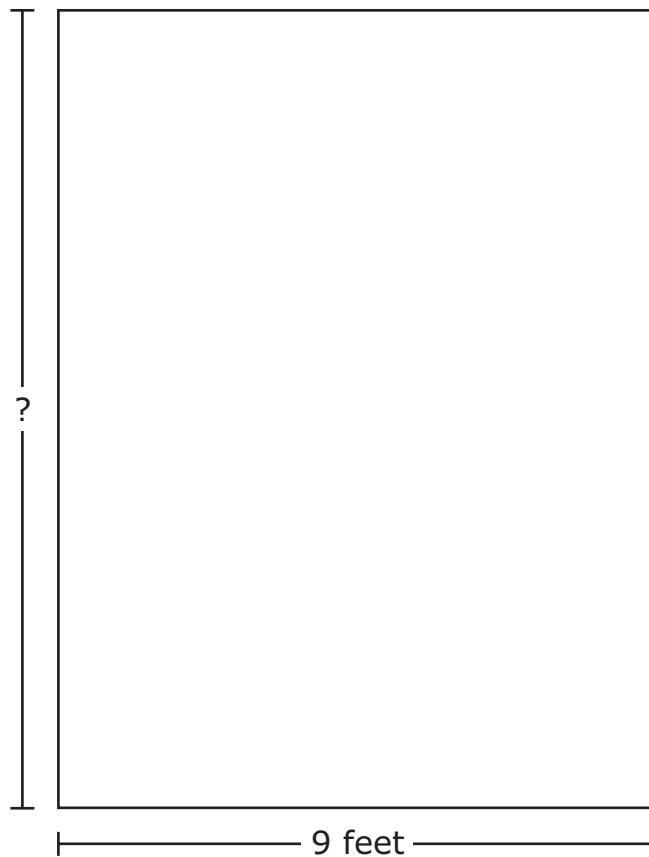


- 3 Compute:

$$65 \times 98$$

Enter your answer in the box.

- 4 The area of the rectangular sandbox at Dave's school is 108 square feet.
The sandbox has a width of 9 feet as shown in the diagram.



What is the length, in feet, of the sandbox?

Enter your answer in the box.

- 5 Ryan makes 6 backpacks. He uses $\frac{3}{4}$ yard of cloth to make each backpack. What is the total amount of cloth, in yards, Ryan uses to make all 6 backpacks?
- A. $1\frac{1}{2}$
- B. $2\frac{1}{4}$
- C. $4\frac{1}{2}$
- D. $6\frac{3}{4}$

- 6 Carl sold cookies and pies at a bake sale to earn money.
- A bag of cookies sells for \$3.
 - A pie sells for \$8.

Part A

Carl sold 4 bags of cookies and 2 pies during the first hour of the bake sale. What is the total amount of money, in dollars, Carl earned during the first hour of the bake sale? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

Part B

Ms. O'Hara bought 2 bags of cookies and 1 pie from Carl. She paid with a \$20 bill. What is the total amount of change, in dollars, Ms. O'Hara should receive? Show or explain how you got your answer.

Enter your answer and your work or explanation in the space provided.

Part C

Vanessa sold cakes at the same bake sale.

Mr. Stanley bought 1 bag of cookies and 2 pies from Carl. Mr. Stanley also spent \$11 to buy a cake from Vanessa at the bake sale. Write an equation to show m , the total amount of money, in dollars, Mr. Stanley spent at the bake sale.

Enter your equation in the space provided. Enter **only** your equation.

Part D

Solve the equation you wrote in Part C to find the total amount of money, in dollars, Mr. Stanley spent at the bake sale. Show your work.

Enter your answer and your work in the space provided.

Grade 4 Mathematics

SESSION 2

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EXAMPLES

To answer 632 in a question, fill in the answer grid as shown below.

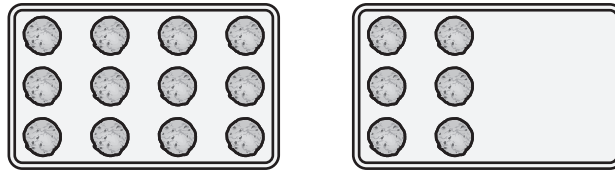
6	3	2			
○	○	○	○	○	○
0	0	0	0	0	0
1	1	1	1	1	1
2	2	●	2	2	2
3	●	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
●	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

A brick path has 10 rows of 4 bricks. What is the total number of bricks in the path?

Enter your answer in the box.

4	0				
○	○	○	○	○	○
0	●	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
●	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

- 7 This picture shows the $1\frac{1}{2}$ pans of cookies that Reggie baked.



Which of the following is another way to write $1\frac{1}{2}$?

- A. $\frac{11}{2}$
 - B. $\frac{18}{2}$
 - C. $1\frac{6}{12}$
 - D. $1\frac{6}{18}$
- 8 Ten numbers are shown in the box.

1	2	4	8	20
24	36	58	64	80

Which list includes all the multiples of 8 that are shown in the box?

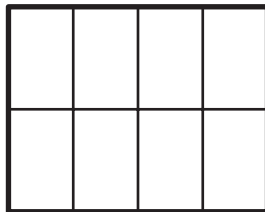
- A. 8, 58, 80
- B. 1, 2, 4, 8
- C. 8, 24, 64, 80
- D. 1, 8, 24, 64, 80

- 9 How many lines of symmetry does this letter have?



Enter your answer in the box.

- 10 The rectangle is divided into eight equal sections.



Jodi colors 4 sections. Then she colors 3 more sections.

Which **two** of these represent the fraction of the rectangle that Jodi colors in all?

Select the **two** correct answers.

A. $\frac{4}{8} + \frac{3}{8}$

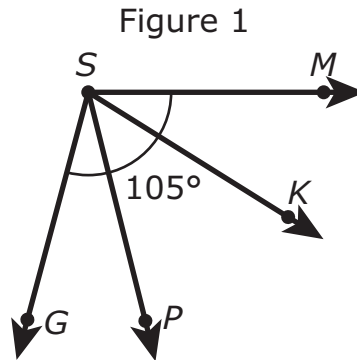
B. $4 + 3$

C. $\frac{8}{4} + \frac{8}{3}$

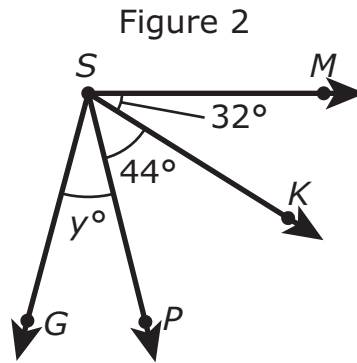
D. $\frac{1}{8} + 3$

E. $\frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$

- 11 Two figures are shown. In Figure 1, the measure of angle MSG is 105° .



The measures of angle MSK , angle KSP , and angle PSG are shown in Figure 2. The measure of angle MSG is still 105° .



Part A

Which equation can be used to find the value of y ?

- A. $y - 44 - 32 = 105$
- B. $y \times 44 \times 32 = 105$
- C. $y \div 44 \div 32 = 105$
- D. $y + 44 + 32 = 105$

Part B

What is the value of y ?

Enter your answer in the box.

- 12 The table shows the number of yards Ed ran in each of the first three football games of the season.

Ed's Running Yards

Game	Yards
1	157
2	309
3	172

After the first three games of the season, Rico had exactly 3 times the total number of running yards that Ed had.

How many **more** total running yards did Rico have than Ed after the first three games of the season? Show your work using equations.

Enter your answer and your work in the space provided.

MASSACHUSETTS COMPREHENSIVE ASSESSMENT SYSTEM

Grade 4 Mathematics Practice Test Answer Document

School Name: _____
District Name: _____
Last Name of Student: _____
First Name of Student: _____

MARKING INSTRUCTIONS

- Use a No. 2 pencil only.
- Do not use ink, ballpoint, or felt-tip pens.
- Make solid marks that fill the circles completely.
- Erase cleanly any marks you wish to change.
- Do not make any stray marks on this form.
- Do not fold, tear, or damage this form.

1. (A) (B) (C) (D)

2. (A) (B) (C) (D) (E)

3.

•	•	•	•	•	•
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

4.

•	•	•	•	•	•
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

5. (A) (B) (C) (D)

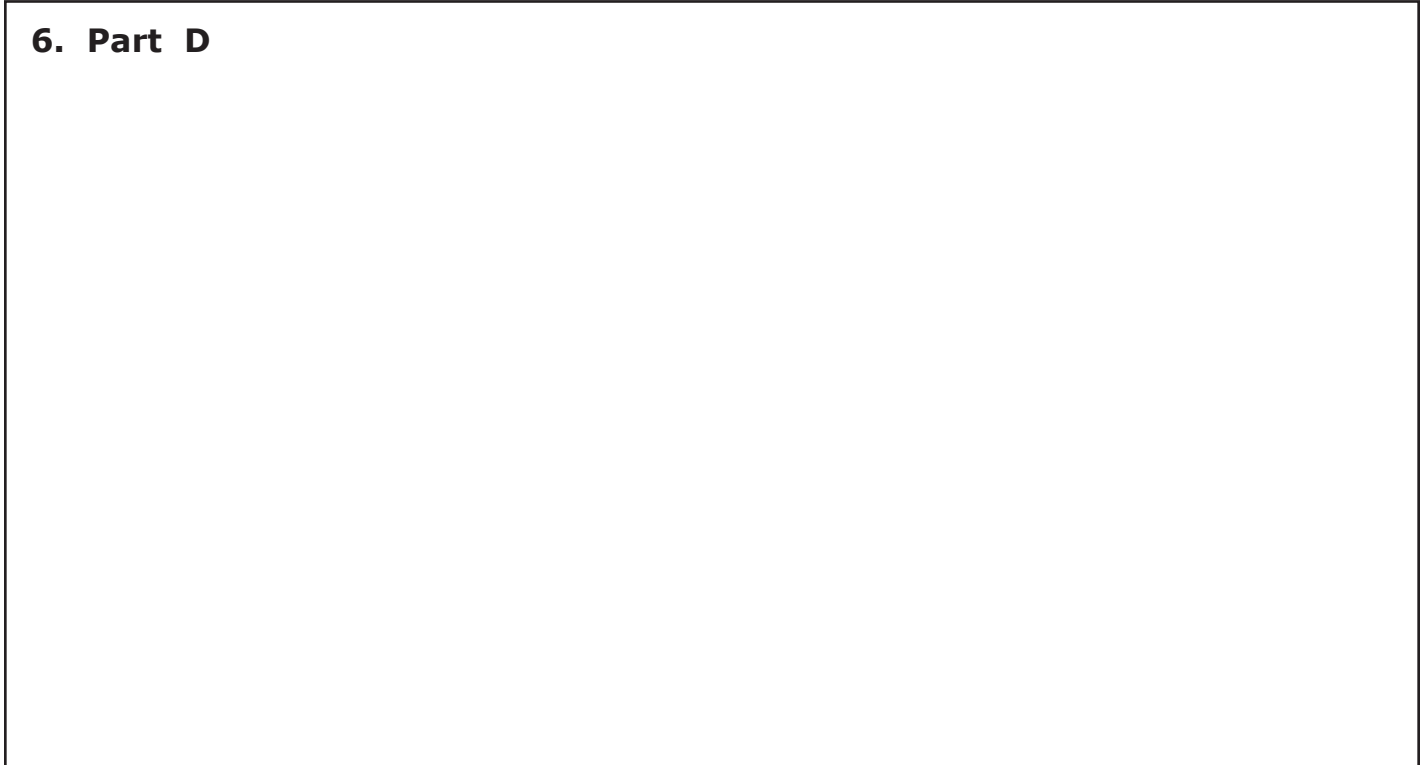
6. Part A

6. Part B

6. Part C



6. Part D



7. (A) (B) (C) (D)

8. (A) (B) (C) (D)

9.

•	•	•	•	•	•
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

10. (A) (B) (C) (D) (E)

11. Part A (A) (B) (C) (D)

Part B

•	•	•	•	•	•
0	0	0	0	0	0
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

12.

