

Student Name _____

P

**Grade 4
Mathematics
Test Booklet**

Practice Test

TEST BOOKLET SECURITY BARCODE



Unit 1

Directions:

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7. See below for examples on how to correctly complete an answer grid.

EXAMPLES

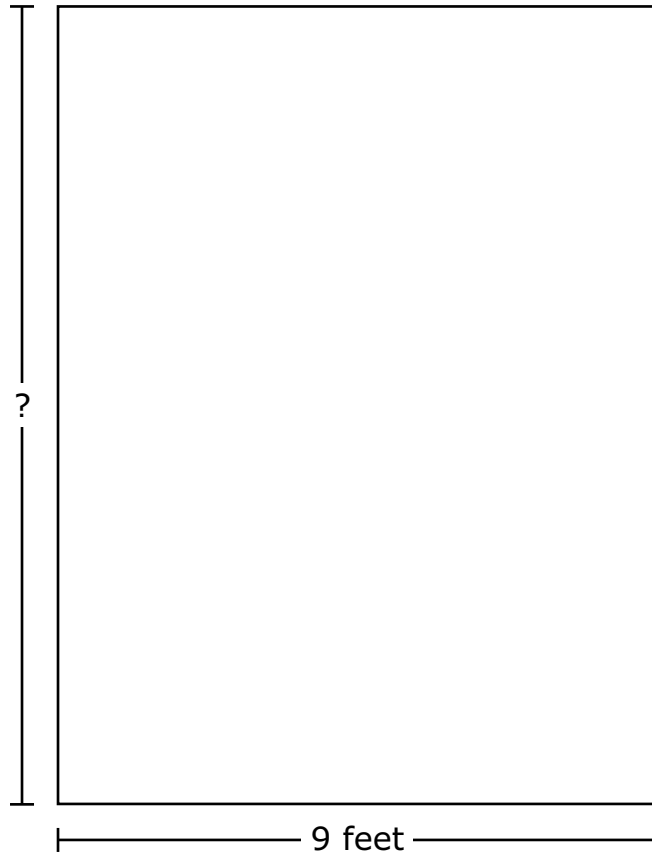
To answer 632 in a question, fill in the answer grid as shown below.

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

To answer .75 in a question, fill in the answer grid as shown below.

.	7	5			
●	○	○	○	○	○
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
6	6	6	6	6	6
7	●	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

1. 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?

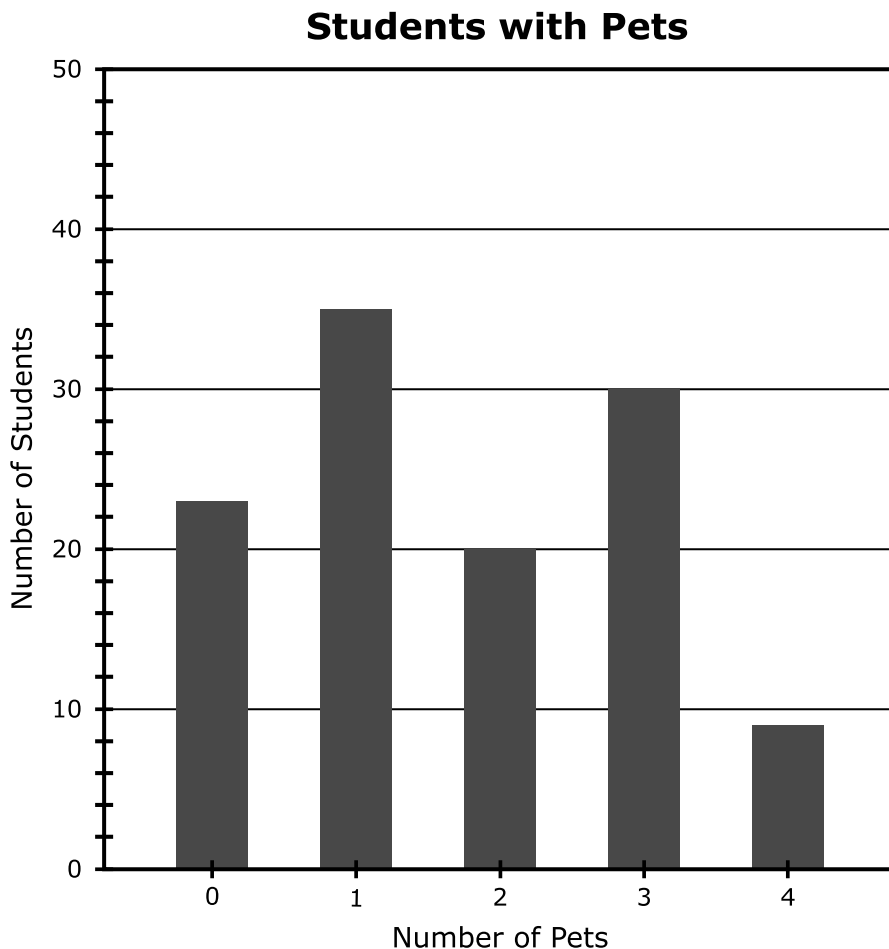
Enter your answer in the box.

2. Enter your answer in the box.

$$3,649 \times 6 =$$

Use the information provided to answer Part A through Part C for question 3.

Ms. Sloan asked 117 fourth-grade students the question, "How many pets do you have?" She displayed the data she collected in the bar graph shown.



3. Part A

How many of the students that responded have 2 pets?

Enter your answer in the box.

Part B

How many more students have 1 pet than students who have 3 pets? Explain your answer.

Enter your answer and explanation in the space provided.

Part C

Find the total number of pets the fourth-grade students have.

- Explain how you used the bar graph to solve the problem.
- Show your work using equations.

Enter your explanation, your work, and the total number of pets in the space provided.

4. Select the **three** choices that are factor pairs for the number 28.

A. 1 and 28

B. 2 and 14

C. 3 and 9

D. 4 and 7

E. 6 and 5

F. 8 and 3

5. Which pairs of fractions show a correct comparison?

Select the **two** correct answers.

A. $\frac{2}{5} = \frac{40}{100}$

B. $\frac{2}{5} > \frac{6}{9}$

C. $\frac{2}{5} > \frac{2}{3}$

D. $\frac{3}{5} < \frac{8}{12}$

E. $\frac{3}{5} > \frac{2}{3}$

F. $\frac{3}{5} = \frac{98}{100}$

6. Which numbers make the comparison true?

$$27,768 < \square$$

Select the **two** correct answers.

- A. 27,759
- B. 28,744
- C. 26,773
- D. 27,568
- E. 27,836

7. **Part A**

Alex ran 0.5 mile.

What number should replace the ? to make a fraction equivalent to 0.5?

$$\frac{?}{10}$$

Enter your answer in the box.

Part B

Christy ran $\frac{4}{10}$ mile on Monday and $\frac{7}{100}$ mile on Tuesday. She said that she ran a total of $\frac{47}{100}$ mile. Christy told Alex that she ran a greater distance than he ran, because 47 is more than 5.

- Identify the incorrect reasoning in Christy's statement.
- Explain how Christy can correct her reasoning.
- Use $>$, $<$, or $=$ to give a correct comparison between the distances that Alex and Christy ran.

Enter your explanation and the correct comparison in the space provided.

Use the information provided to answer Part A and Part B for question 8.

Each student in a class chose one sport to play. The table shows the fractions of all students who chose each sport.

Sport	Fraction of All Students
soccer	$\frac{3}{10}$
football	$\frac{2}{10}$
hockey	$\frac{1}{10}$
basketball	$\frac{4}{10}$

8. Part A

Which equation can be used to find s , the fraction of all students that chose to play either soccer or basketball?

A. $\frac{3}{10} + \frac{4}{10} = s$

B. $\frac{2}{10} - \frac{1}{10} = s$

C. $\frac{4}{10} + \frac{2}{10} = s$

D. $\frac{4}{10} - \frac{3}{10} = s$

Part B

What fraction of all the students chose to play either soccer or basketball?

A. $\frac{1}{10}$

B. $\frac{3}{10}$

C. $\frac{6}{10}$

D. $\frac{7}{10}$

9. Enter your answer in the box.

$$522 \div 9 =$$

10. The value of the digit 4 in the number 42,780 is 10 times the value of the digit 4 in which number?
- A. 34,651
 - B. 146,703
 - C. 426,135
 - D. 510,400

11. 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.

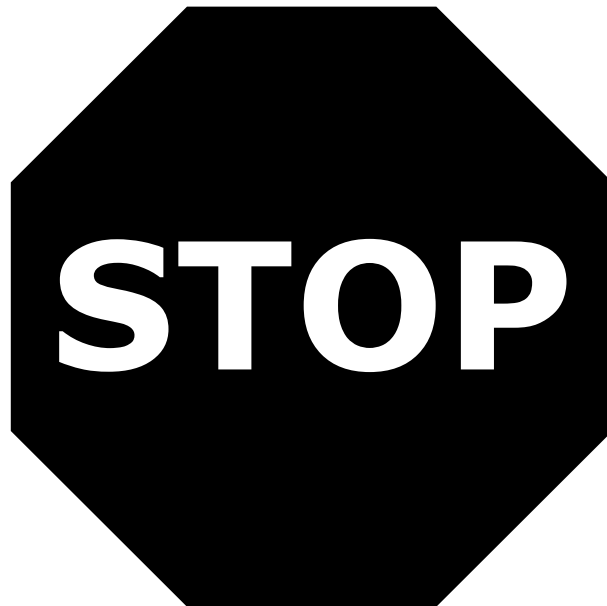
How many **more** total running yards did Rico have than Ed after the first three games of the season? Show your work using equations.

Enter your answer and your work in the space provided.

12. Enter your answer in the box.

$$5,314 - 4,983 =$$





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Unit 2

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EXAMPLES

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

6	3	2			
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
0	0	0	0	0	0
1	1	1	1	1	1
2	2	<input checked="" type="radio"/>	2	2	2
3	<input checked="" type="radio"/>	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
<input checked="" type="radio"/>	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

To answer .75 in a question, fill in the answer grid as shown below.

.	7	5			
<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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	<input checked="" type="radio"/>	5	5	5
6	6	6	6	6	6
7	<input checked="" type="radio"/>	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

13. 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. $6\frac{3}{4}$

GO ON TO NEXT PAGE

Use the information provided to answer Part A and Part B for question 14.

Rachana has a set of 10 mugs. The set is made up of three different kinds of mugs.

- $\frac{1}{2}$ of the mugs have pictures on them.
- $\frac{2}{5}$ of the mugs have words on them.
- $\frac{1}{10}$ of the mugs have flowers on them.

14. Part A

Select the **three** number sentences that correctly compare two of these fractions.

A. $\frac{1}{2} < \frac{2}{5}$

B. $\frac{1}{2} > \frac{2}{5}$

C. $\frac{1}{2} < \frac{1}{10}$

D. $\frac{1}{2} > \frac{1}{10}$

E. $\frac{1}{10} < \frac{2}{5}$

F. $\frac{1}{10} > \frac{2}{5}$

Part B

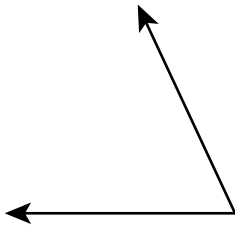
Which fraction is equal to $\frac{2}{5}$?

- A. $\frac{1}{10}$
- B. $\frac{2}{10}$
- C. $\frac{4}{10}$
- D. $\frac{5}{10}$

15. Which angle has a measure of 65° ?

You can use a protractor to help you find the answer.

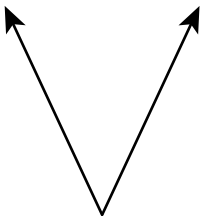
A.



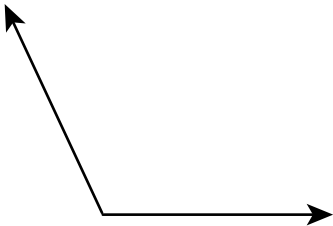
B.



C.



D.



- 16.** Which **three** comparisons are correct?
- A.** 0.4 meter $>$ 0.04 meter
 - B.** 0.04 meter $>$ 0.3 meter
 - C.** 0.3 meter $<$ 0.5 meter
 - D.** 0.5 meter $>$ 0.65 meter
 - E.** 0.65 meter $>$ 0.61 meter
 - F.** 0.65 meter $<$ 0.04 meter
- 17.** A basketball team scored a total of 747 points for the season. This was 9 times the number of points scored in the first game. How many points were scored during the first game?
- A.** 73
 - B.** 75
 - C.** 82
 - D.** 83

Use the information provided to answer Part A and Part B for question 18.

Camille wants to make fruit drinks. The directions to make one drink include mixing $\frac{4}{8}$ cup of yogurt and 1 cup of ice with the amounts of each fruit shown.

- $\frac{5}{8}$ cup of banana slices
- $\frac{2}{8}$ cup of blueberries

18. Part A

Camille wants to make 6 drinks for her friends. How many total cups of blueberries and banana slices will she use to make the 6 drinks?

- A. $\frac{7}{8}$
- B. $\frac{12}{8}$
- C. $\frac{30}{8}$
- D. $\frac{42}{8}$

Part B

Next Camille will add the yogurt and ice. How many total cups of yogurt and ice will she use to make the 6 drinks? Show your work or explain your answer.

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

Use the information provided to answer Part A and Part B for question 19.

The number of science fair projects entered for each grade in a city-wide science fair is shown.

City-Wide Science Fair

Grade	Number of Science Fair Projects
3	462
4	759
5	891

19. Part A

The science fair projects are set up on tables. There are 99 long tables used. Each long table holds 7 projects. The rest of the projects are set up on short tables. Each short table can hold 4 projects. What is the **fewest** number of short tables that will be needed for the rest of the projects?

- A. 202
- B. 203
- C. 354
- D. 355

Part B

The science fair judges will be science teachers and volunteers. Each judge will only have time to view 5 science fair projects. There are 133 science teachers. What is the **fewest** number of volunteers needed to have enough judges for all of the projects?

- A. 290
- B. 396
- C. 422
- D. 423

20. Which **two** equations represent the statement “48 is 6 times as many as 8”?

Select the **two** correct answers.

A. $48 = 6 + 8$

B. $48 = 6 \times 8$

C. $48 = 6 \times 6$

D. $48 = 8 + 6$

E. $48 = 8 \times 6$

21. 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

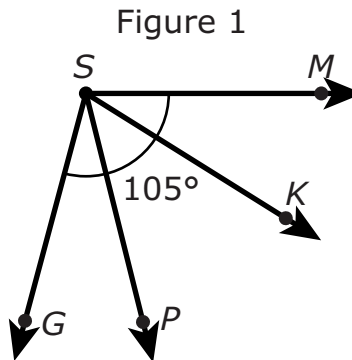
B. 1, 2, 4, 8

C. 8, 24, 64, 80

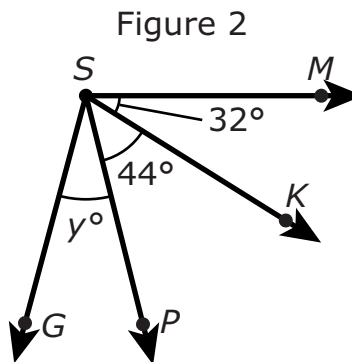
D. 1, 8, 24, 64, 80

Use the information provided to answer Part A and Part B for question 22.

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° .



22. 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 ?

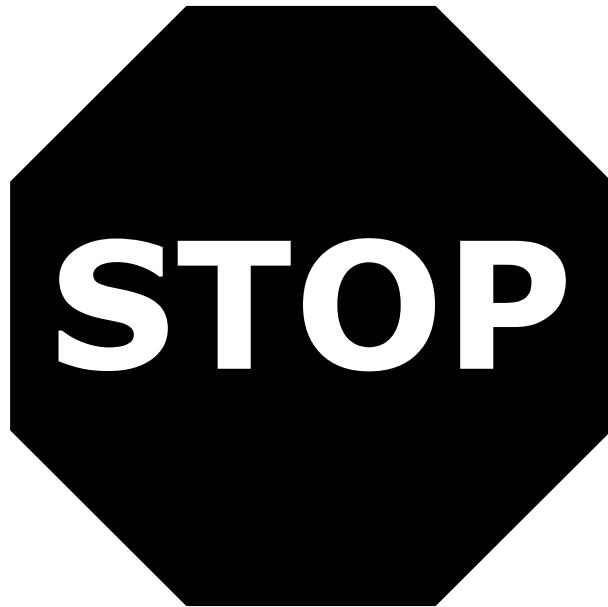




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Unit 3

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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

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●	○	○	○	○	○
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
6	6	6	6	6	6
7	●	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9

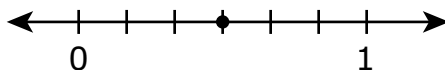
23. Hayley has 272 beads. She buys 38 more beads. She will use 89 beads to make bracelets and the rest to make necklaces. She will use 9 beads for each necklace.

What is the **greatest** number of necklaces Hayley can make?

Enter your answer in the box.

24. Part A

Shaun plotted a point on the number line by drawing 5 equally spaced marks between 0 and 1 and placing a point on the third mark. He claims that the point represents the fraction $\frac{3}{5}$ because each mark represents $\frac{1}{5}$, so the third mark represents $\frac{3}{5}$.



- Explain why Shaun’s reasoning is incorrect.
- Explain how you can use the number line to determine the fraction that Shaun’s point represents.
- Determine the fraction that Shaun’s point represents.

Enter your explanations and your answer in the space provided.

Part B

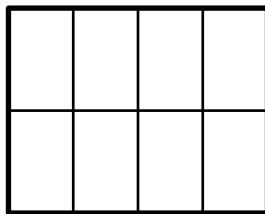
Shaun wants to write a fraction that is equivalent to the fraction $\frac{2}{3}$.

Describe how Shaun can find a fraction that is equivalent to $\frac{2}{3}$.

Enter your description in the space provided.

25. Which statement about angles is true?
- A. An angle is formed by two rays that do not have the same endpoint.
 - B. An angle that turns through $\frac{1}{360}$ of a circle has a measure of 360 degrees.
 - C. An angle that turns through five 1-degree angles has a measure of 5 degrees.
 - D. An angle measure is equal to the total length of the two rays that form the angle.

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

Use the information provided to answer Part A and Part B for question 27.

Jian's family sells honey from beehives. They collected 3,311 ounces of honey from the beehives this season. They will use the honey to completely fill 4-ounce jars or 6-ounce jars.

Jian's family will sell 4-ounce jars for \$5 each or 6-ounce jars for \$8 each.

Jian says if they use only 4-ounce jars, they could make \$4,140 because $3,311 \div 4 = 827 \text{ R } 3$. That rounds up to 828, and 828 multiplied by \$5 is \$4,140.

27. Part A

Explain the error that Jian made when finding the amount of money his family could make if they use only 4-ounce jars.

Enter your explanation in the space provided.

Part B

Explain how to determine the money Jian's family could make if they use only 6-ounce jars. Include the total amount of money and the total number of 6-ounce jars in your explanation.

Enter your answers and your explanation in the space provided.

- 28.** The length of a desktop is 4 feet. How many inches is the length of the desktop?

Enter your answer in the box.

- 29.** Mr. Kowolski ordered 35 boxes of granola bars. Each box contained 24 granola bars.

What is the total number of granola bars Mr. Kowolski ordered?

Enter your answer in the box.

30. Part A

Sean buys 5 packages of fish. There is $\frac{7}{8}$ pound of fish in each package. What is the total weight, in pounds, of fish that Sean buys?

- A. $1\frac{2}{8}$
- B. $1\frac{4}{8}$
- C. $3\frac{5}{8}$
- D. $4\frac{3}{8}$

Part B

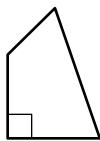
Sean cooks 1 package of the fish. He eats $\frac{3}{8}$ pound of the fish from the package.

What is the total weight, in pounds, of the cooked fish that is left after Sean eats $\frac{3}{8}$ pound?

- A. $\frac{2}{8}$
- B. $\frac{3}{8}$
- C. $\frac{4}{8}$
- D. $\frac{5}{8}$

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

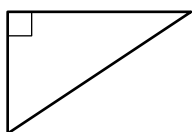
A.



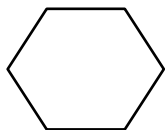
B.



C.



D.



E.





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4 - MTH

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