LEAP 2025

Mathematics

2017 Practice Test

Grade 3

DEPARTMENT of EDUCATION

Louisiana Believes

Session 1

Directions:

Today, you will take Session 1 of the Grade 3 Mathematics Test. You will not be able to use a calculator in this session.

Read each question. Then, follow the directions to answer each question. Mark your answers by completely filling in the circles in your test booklet. Do not make any stray pencil marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely.

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

If you do not know the answer to a question, you may go to the next question. If you finish early, you may review your answers and any questions you did not answer in this session **ONLY**. Do not go past the stop sign.

GO ON ▶

Directions for Completing the Answer Grids

1. Work the problem 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.
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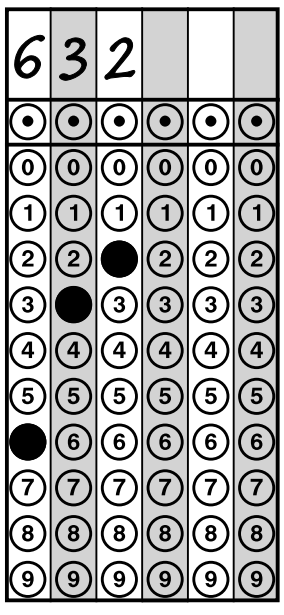
6. See below for an example on how to correctly complete an answer grid.

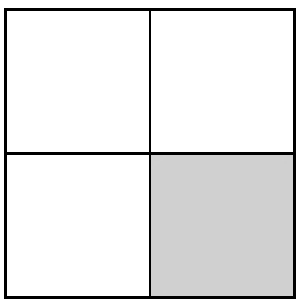
To answer 632 in a question, fill in the answer grid as shown below in your test booklet.

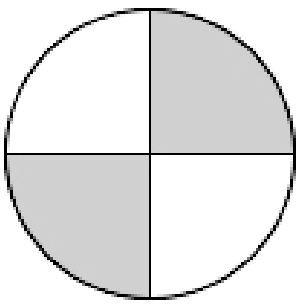


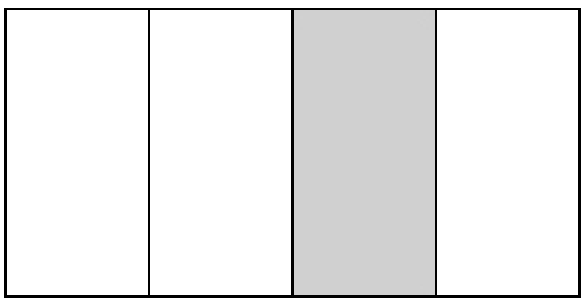
GO ON ▶

1. Each model equals one whole divided into equal parts. Which models show $\frac{1}{4}$ shaded?

   Select the **three** correct answers.

Ⓐ 

Ⓑ 

Ⓒ 

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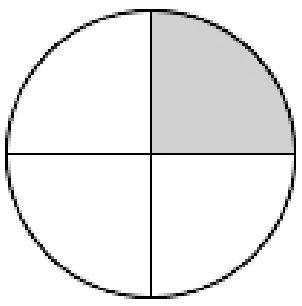
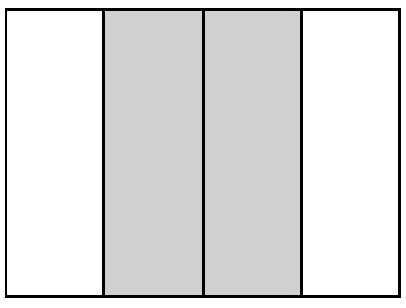
Ⓔ 

Ⓕ 

2. A tablet has a rectangular screen with a width of 7 inches and a length of 9 inches. Select the **three** ways to calculate the area of the screen, in square inches.

Ⓐ 7×7

Ⓑ 7×9

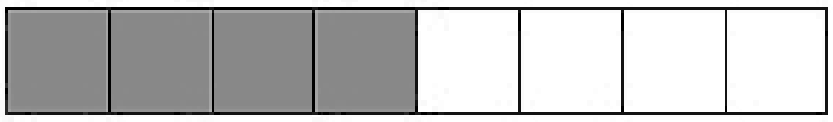
Ⓒ 9×7

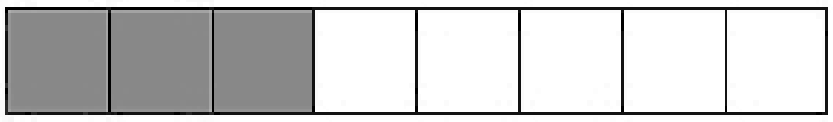
Ⓓ 9×9

Ⓔ $7 + 7 + 7 + 7 + 7 + 7 + 7$

Ⓕ $9 + 9 + 9 + 9 + 9 + 9 + 9$

3. A model is divided into 8 equal parts. Which model shows the correct shading of $\frac{5}{8}$?

Ⓐ 

Ⓑ 

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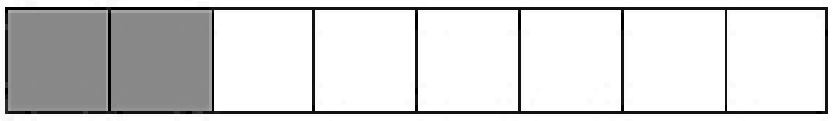
Ⓓ 

GO ON ▶

4. Which **two** statements can be represented by the expression 4 × 8?

   Ⓐ A teacher puts 8 chairs at each of 4 tables.

   Ⓑ Tom buys 4 red markers and 8 black markers.

   Ⓒ Marie shares her 8 marbles equally among 4 friends.

   Ⓓ There are 4 rows of flowers. There are 8 flowers in each row.

   Ⓔ There are 8 ducks in the pond. Then, 4 more ducks join them.

5. A boat ride across a lake is 49 minutes each way. How many minutes does the boat ride take to go across the lake and back?

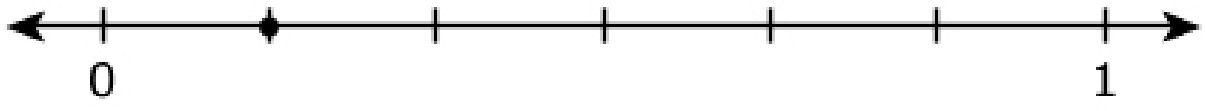
   Ⓐ 49

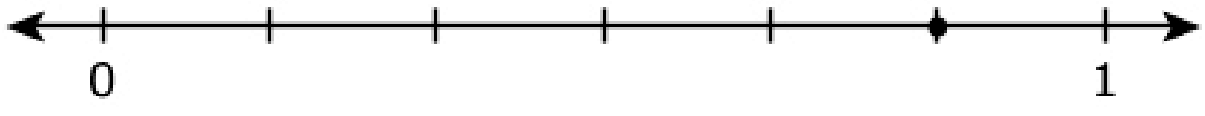
   Ⓑ 51

   Ⓒ 54

   Ⓓ 98

6. Which number line shows a point at $\frac{5}{6}$?

Ⓐ 

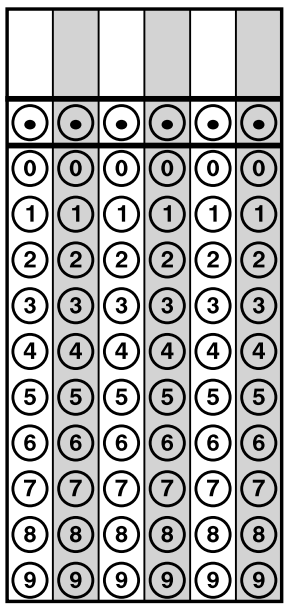
Ⓑ 

Ⓒ

Ⓓ

7. Enter your answer in the box.

$3 \times 80 =$



8. Which statements are true?

Select the **three** correct answers.

Ⓐ $6 \times 6 = 9 \times 4$

Ⓑ $8 \times 8 = 9 \times 6$

Ⓒ $9 \times 8 = 7 \times 6$

Ⓓ $81 \div 9 = 72 \div 8$

Ⓔ $48 \div 6 = 64 \div 8$

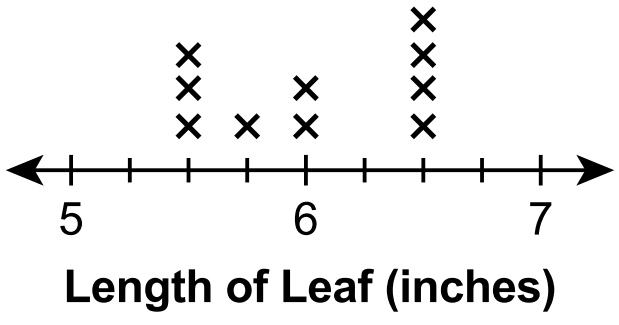
9. Eric measures 10 leaves with a ruler. He records the lengths as shown.

Lengths of Leaves (inches)

$5\frac{1}{2},\ 6\frac{1}{2},\ 6\frac{1}{2},\ 6,\ 5\frac{3}{4},\ 5\frac{1}{2},\ 6,\ 6,\ 5\frac{1}{2},\ 6$

Which line plot shows the lengths of the leaves recorded correctly?

Ⓐ



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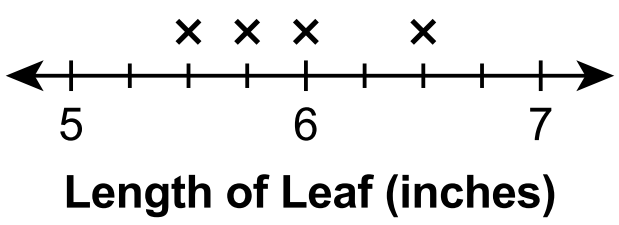

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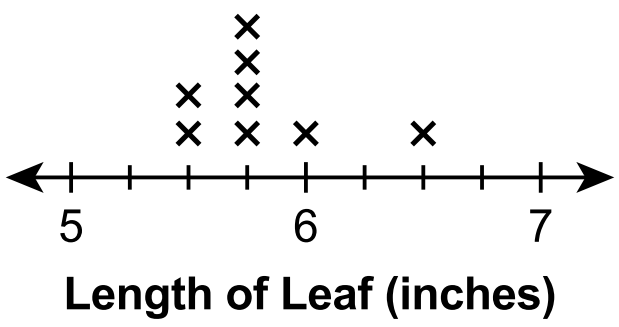

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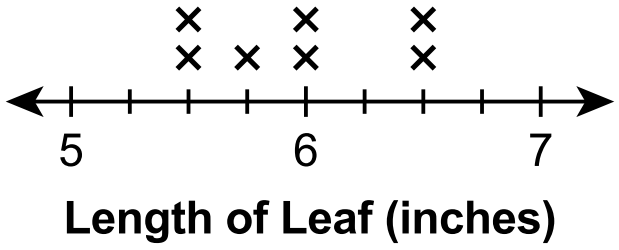
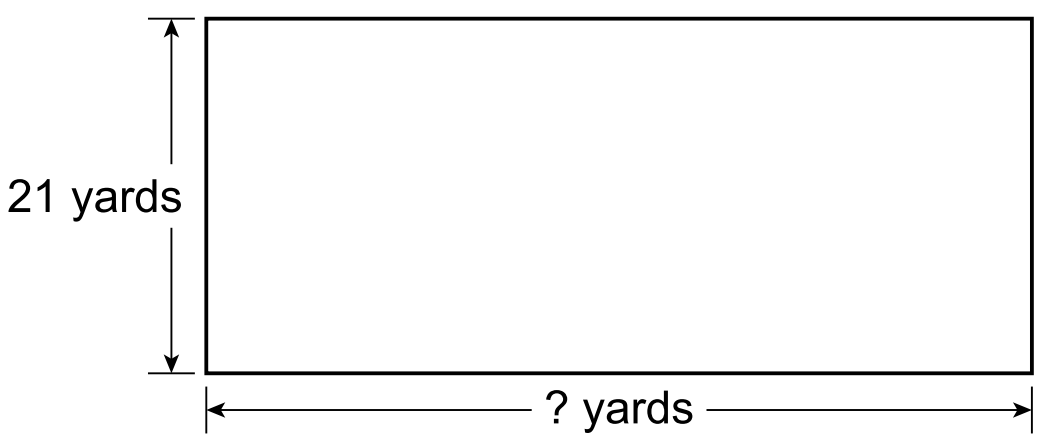


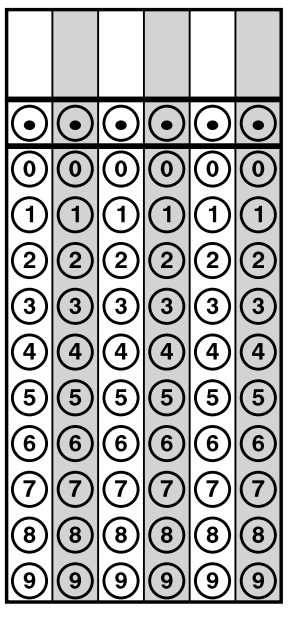
10. **Part A**

The rectangular garden at River Valley School is represented in the figure. The perimeter of the garden is 122 yards.



What is the missing side length, in yards, in the figure?

Enter your answer in the box.



Part B

River Valley School builds a new rectangular garden with the same perimeter, but the side lengths are different.

Which of these could be the side lengths of the new garden?

Ⓐ 15 yards by 48 yards

Ⓑ 14 yards by 47 yards

Ⓒ 13 yards by 57 yards

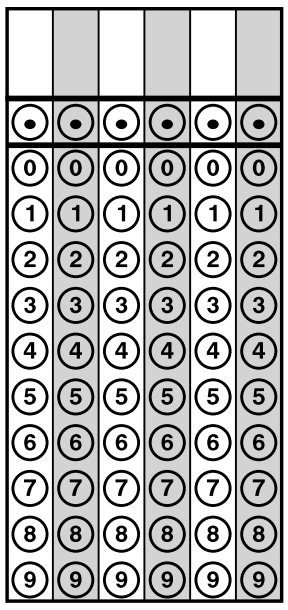
Ⓓ 14 yards by 58 yards

GO ON ▶

11. Ken draws a rectangle with an area of 35 square inches. The width of the rectangle is 5 inches.

What is the length, in inches, of Ken's rectangle?

Enter your answer in the box.



Use the information provided to answer Part A and Part B for question 12.

12. Jeanie has different colored buttons as shown. She wants to determine the total number of buttons she has altogether.

    - 20 blue
    - 19 orange
    - 31 red
    - 28 yellow

    Part A

    Jeanie explains there are a total of 818 buttons because 0 + 9 + 1 + 8 = 18 in the ones place, so she writes down 18. Then 2 + 1 + 3 + 2 = 8 in the tens place, so she writes down 8 in front of the 18.

    Explain why Jeanie's reasoning is incorrect. Find the total number of buttons she has altogether.

    Enter your answer and your explanation in the box provided.

GO ON ▶

Part B

Jeanie explains there are 28 more red buttons than orange buttons because the smaller number is always subtracted from the larger number. So she got 9 – 1 = 8 in the ones place and 3 – 1 = 2 in the tens place.

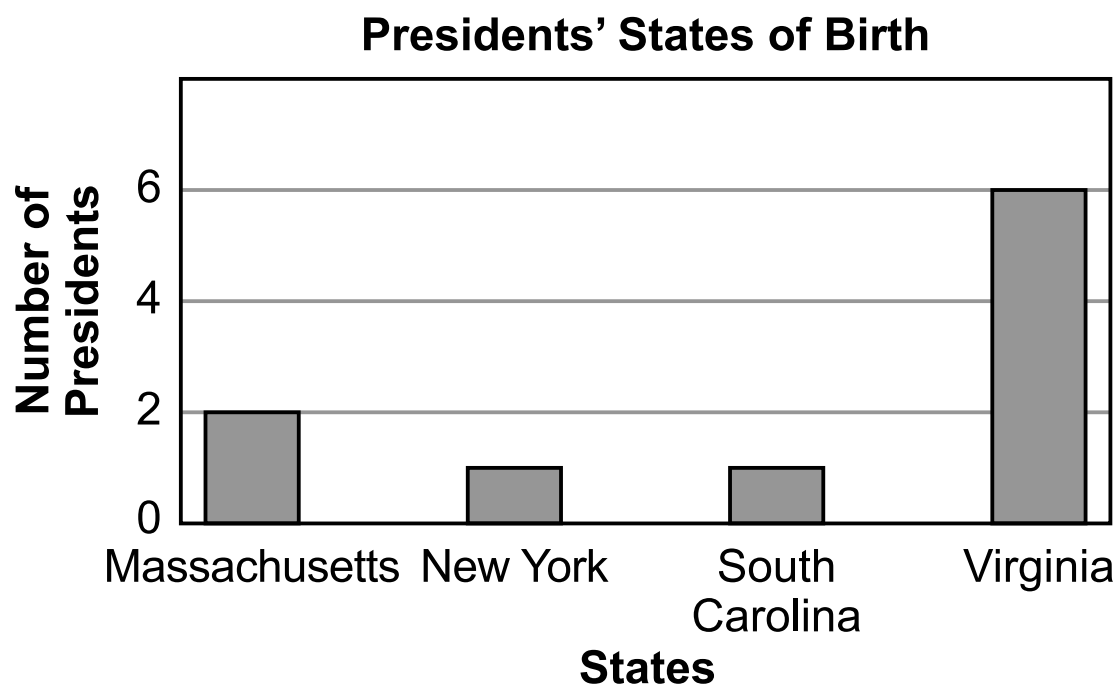
Explain why Jeanie's reasoning is incorrect. Find how many more red buttons than orange buttons she has.

Enter your answer and your explanation in the box provided.

GO ON ▶

Use the information provided to answer Part A and Part B for question 13.

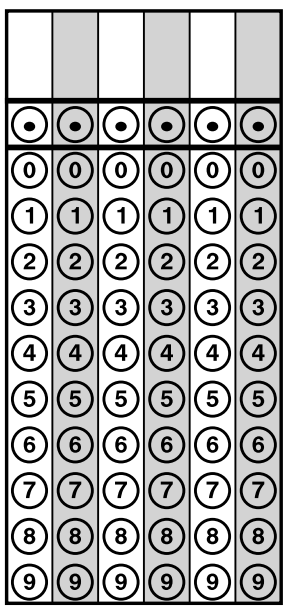
13. The first 10 presidents of the United States were born in four states. The bar graph shows the number of presidents born in each state.



Part A

How many more presidents were born in Virginia than in New York?

Enter your answer in the box.

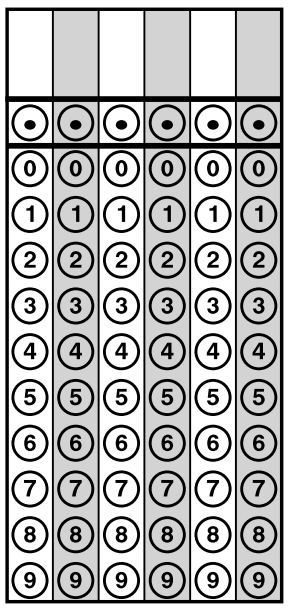


GO ON ▶

Part B

What is the difference between the number of presidents born in Massachusetts and the number of presidents born in New York and South Carolina together?

Enter your answer in the box



14. Mr. Haley bought a total of 36 pictures. The pictures are only sold in packages. Each package came with 4 small pictures, 3 medium pictures, and 2 large pictures.

    How many pictures were in each package? Show your work.

    How many packages did he buy? Show your work.

    Enter your answers and your work in the box provided.

No Test Materials

Session 2

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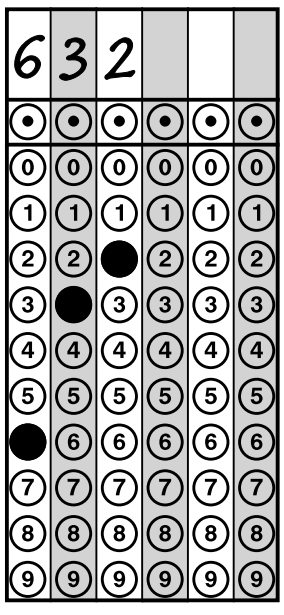


GO ON ▶

15. The number sentences are related facts.

    $5 \times 3 = ?$

    $? \div 3 = 5$

    What is the missing number?

    Ⓐ 2
    Ⓑ 8
    Ⓒ 15
    Ⓓ 20

16. A store has two different-sized fish tanks. One fish tank holds 218 liters of water, and the other fish tank holds 145 liters of water. What is the total number of liters for the two fish tanks?

    Ⓐ 133 liters
    Ⓑ 173 liters
    Ⓒ 353 liters
    Ⓓ 363 liters

17. Which **three** statements can be represented by the expression $24 \div 4$?

    Ⓐ Jake makes 24 muffins. He gives away 4 muffins.
    Ⓑ Collin has 24 toy trucks. He sorts them into groups of 4 trucks each.
    Ⓒ Amira has 24 trading cards. She puts them into piles containing 4 cards each.
    Ⓓ Rosemary puts 24 stickers in each book. She uses enough stickers to fill 4 books.
    Ⓔ Steven fills a new bookshelf with 24 books. He puts the same number of books on each of the 4 shelves.

18. Which expressions are equal to the given expression?

157 + 748

Select the **three** correct answers.

Ⓐ 150 + 755

Ⓑ 200 + 700

Ⓒ 90 + 5

Ⓓ 900 + 5

Ⓔ (160 + 750) – (3 + 2)

Ⓕ (9 + 100) + (0 + 10) + (5 + 1)

19. Select the equation that is true when the number 8 is put into the box.

Ⓐ 64 ÷ □ = 8

Ⓑ 4 × 4 = □

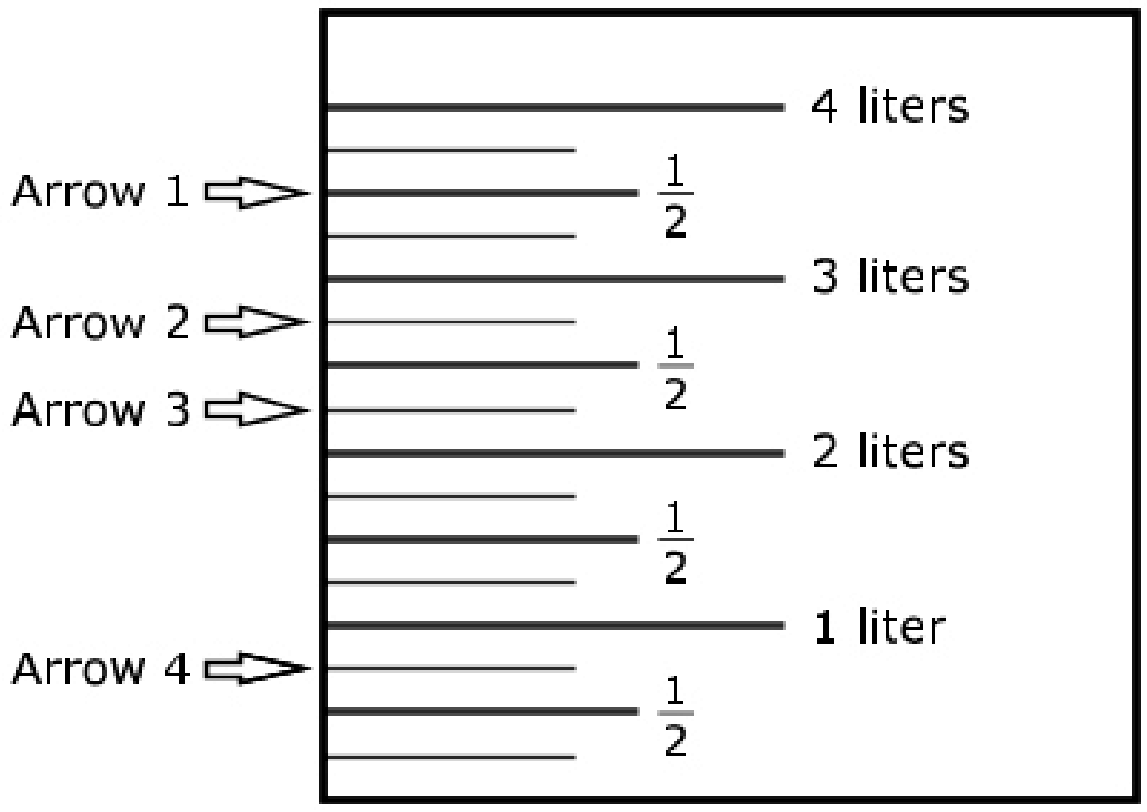
Ⓒ 3 × □ = 27

Ⓓ □ ÷ 2 = 2

GO ON ▶

20. Gwen pours about 3 liters of water into a container.

    Which arrow shows about how much water Gwen poured into the container?



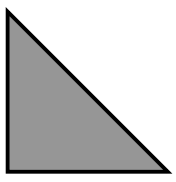
Ⓐ Arrow 1

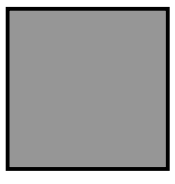
Ⓑ Arrow 2

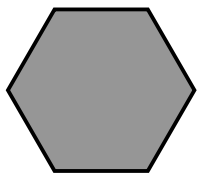
Ⓒ Arrow 3

Ⓓ Arrow 4

21. Which **three** shapes are quadrilaterals?

Ⓐ 

Ⓑ 

Ⓒ 

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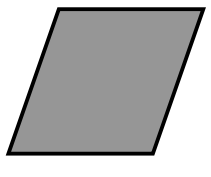
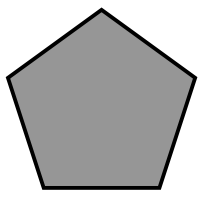
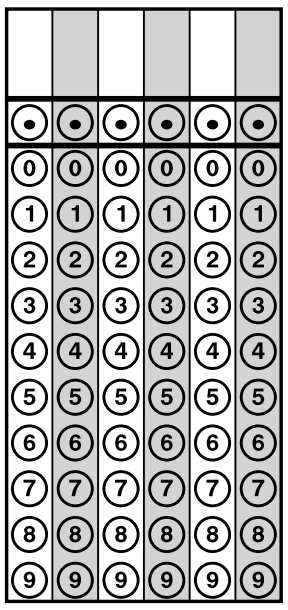
Ⓔ 

Ⓕ 

22. A brick path has 10 rows of 4 bricks. How many bricks are in the path?

    Enter your answer in the box.



23. Connie solved the math problem shown.

    40 ÷ 8 = ?

    Which equation can Connie use to check her answer?

    Ⓐ 8 + ? = 40

    Ⓑ 40 + 8 = ?

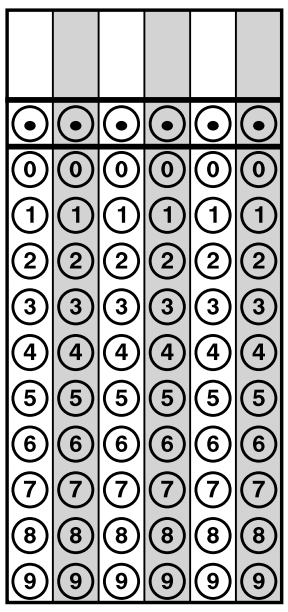
    Ⓒ 8 × ? = 40

    Ⓓ 8 × 40 = ?

24. Mr. Caden builds a fence around his rectangular backyard that is 8 meters long and 7 meters wide.

What is the perimeter, in meters, of the backyard?

Enter your answer in the box.

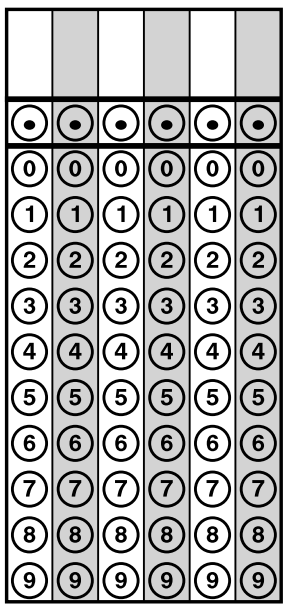


25. **Part A**

Freda buys horse food in 20-kilogram bags. Her horse eats 8 bags of horse food per month.

How much horse food, in kilograms, does Freda's horse eat in one month?

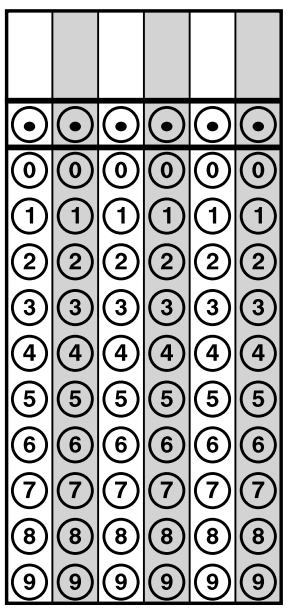
Enter your answer in the box.



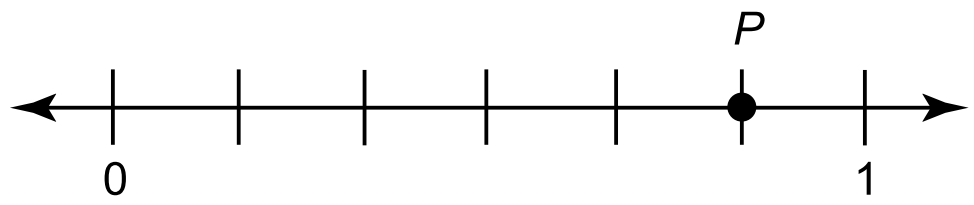
Part B

Freda's horse has a mass of 782 kilograms. Kurt's pony has a mass of 359 kilograms. How much more mass, in kilograms, does Freda's horse have than Kurt's pony?

Enter your answer in the box.



26. Mia placed point *P* on the number line.



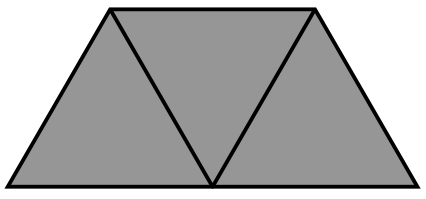
- Give the value of the number *P* as a fraction.
- What does the denominator of your fraction represent on the number line?
- What does the numerator of your fraction represent on the number line?

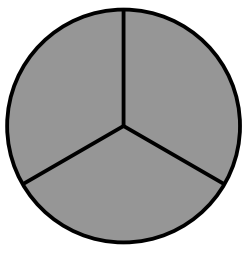
Enter your answer and your explanation in the box provided.

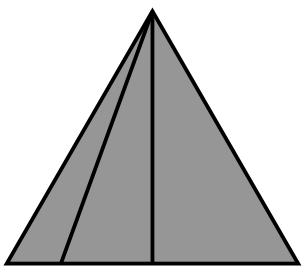
GO ON ▶

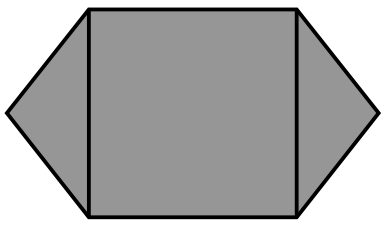
27. Which shapes are divided into thirds?

Select the **three** correct answers.

Ⓐ 

Ⓑ 

Ⓒ 

Ⓓ 

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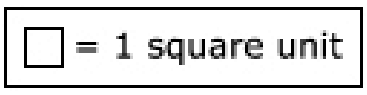
GO ON ▶

28. Which rectangle has an area of 24 square units?



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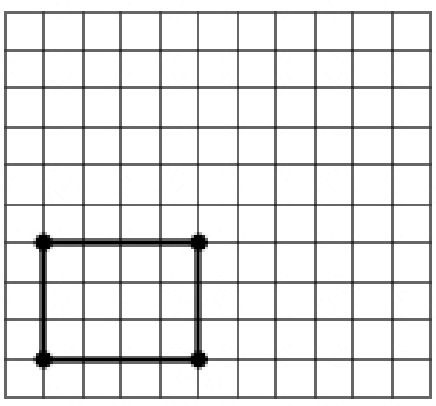

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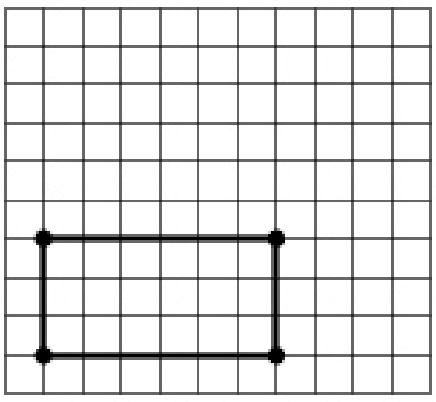

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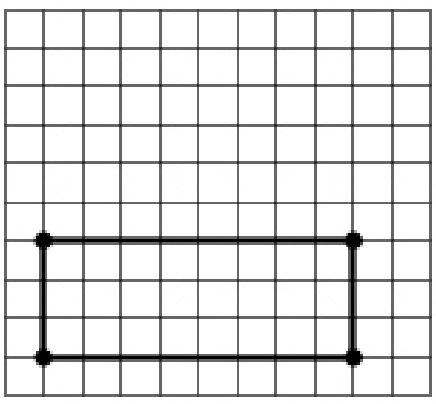

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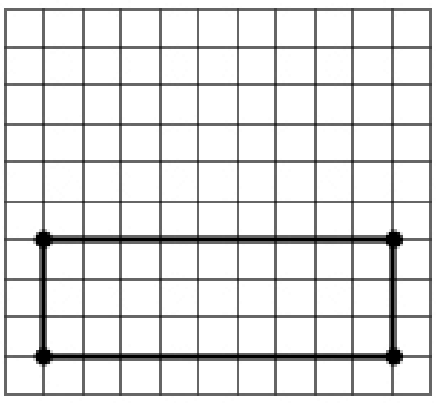


29. Andre visits the library. It takes Andre 26 minutes to walk from his house to the library. He stays at the library 45 minutes. His mother drives him home, which takes 15 minutes. How many more minutes does Andre spend at the library than traveling to and from the library?

    Show all the steps for solving the problem. Explain each step and give the final answer.

    Enter your answer, your work, and your explanation in the box provided.

STOP

No Test Materials

Session 3

Directions:

Today, you will take Session 3 of the Grade 3 Mathematics Test. You will not be able to use a calculator in this session.

Read each question. Then, follow the directions to answer each question. Mark your answers by completely filling in the circles in your test booklet. Do not make any stray pencil marks outside of the circles. If you need to change an answer, be sure to erase your first answer completely.

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

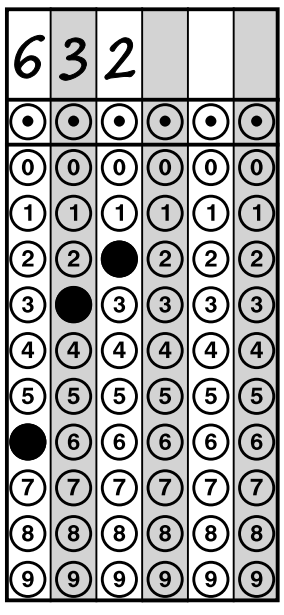
If you do not know the answer to a question, you may go to the next question. If you finish early, you may review your answers and any questions you did not answer in this session **ONLY**. Do not go past the stop sign.

GO ON ▶

Directions for Completing the Answer Grids

1. Work the problem 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. See below for an example on how to correctly complete an answer grid.

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

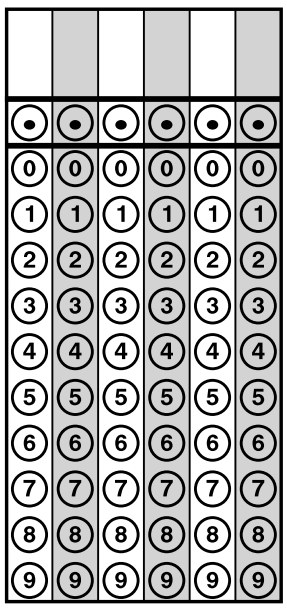


GO ON ▶

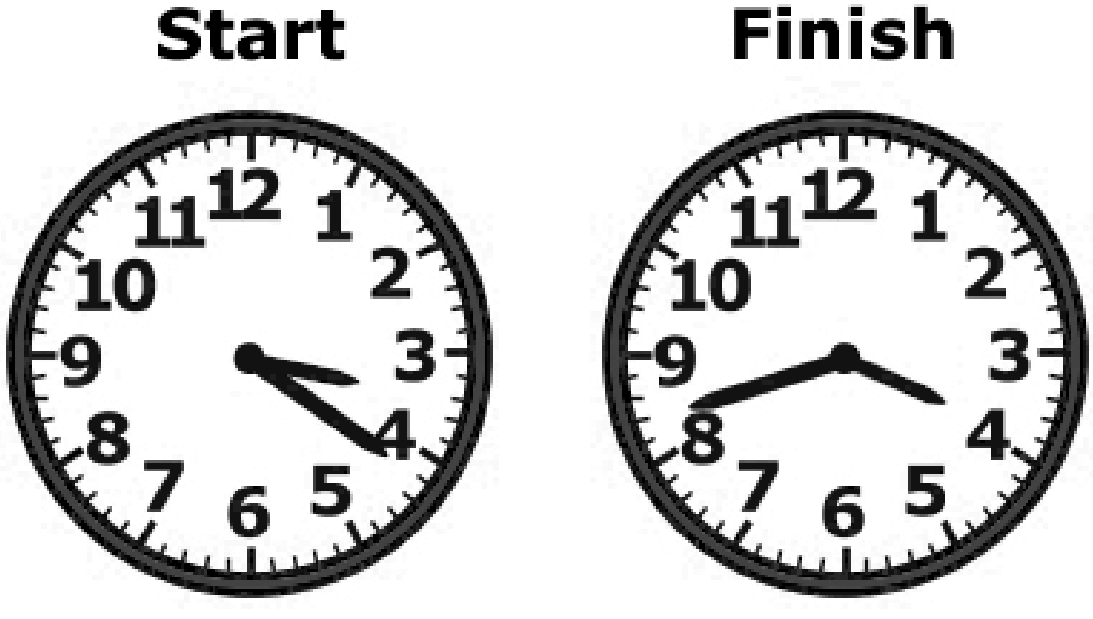
30. Ava uses stickers to decorate picture frames. She has a total of 60 stickers. She uses 10 stickers on each picture frame.

    When she uses all of her stickers, how many picture frames does Ava decorate?

    Enter your answer in the box.



31. The clocks show when Jemma started and finished her homework.



Which statements are true?

Select the **three** correct answers.

Ⓐ Jemma started her homework at 3:21.

Ⓑ Jemma spent 42 minutes on her homework.

Ⓒ Jemma finished her homework at 4:42.

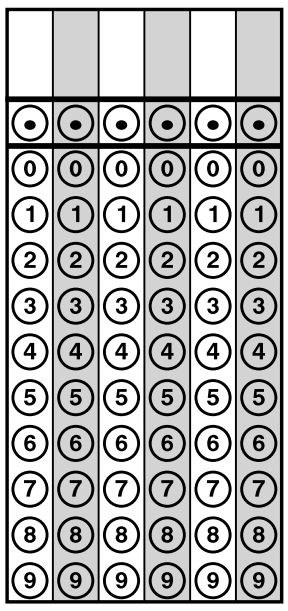
Ⓓ Jemma spent 21 minutes on her homework.

Ⓔ Jemma started her homework at 4:17.

Ⓕ Jemma finished her homework at 3:42.

32. A teacher bought 8 packages of pencils. There were 10 pencils in each package. What is the total number of pencils the teacher bought?

Enter your answer in the box.



33. $\frac{2}{6} < \square$

Select the **three** fractions that make this comparison true.

Ⓐ $\frac{3}{6}$

Ⓑ $\frac{2}{8}$

Ⓒ $\frac{2}{4}$

Ⓓ $\frac{2}{3}$

Ⓔ $\frac{1}{6}$

34. Which problem can be solved using the expression 3 × 4?

Ⓐ A house has 3 rooms on the first floor and 4 rooms on the second floor. How many total rooms does the house have?

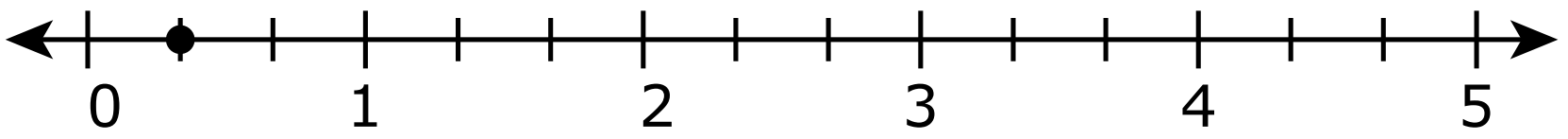
Ⓑ A group of 4 friends share 3 large pizzas. How much pizza does each friend get?

Ⓒ A shopping center has 3 floors, and each floor has 4 stores. How many total stores does the shopping center have?

Ⓓ A group of friends spend $4 on French fries and $3 on drinks. How much do they spend on food and drinks?

35. Which number line shows the correct location of the number $\frac{5}{3}$?

Ⓐ



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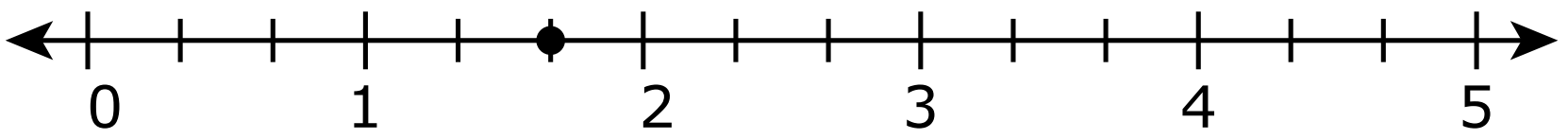

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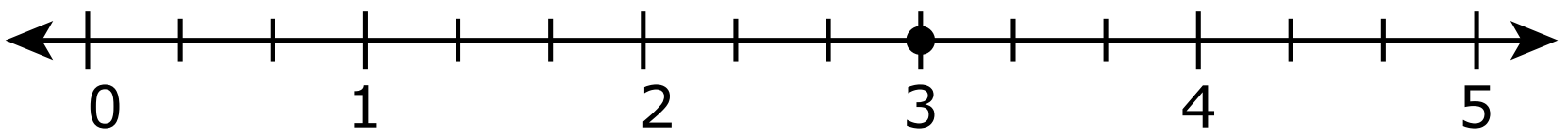

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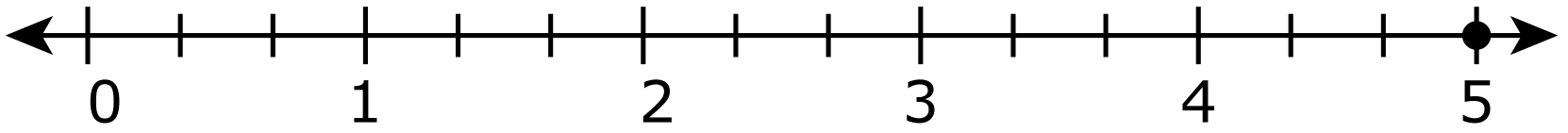


36. Which equations are true?

Select the **three** correct answers.

Ⓐ $7 \div 7 = 0$

Ⓑ $3 \times 4 = 12$

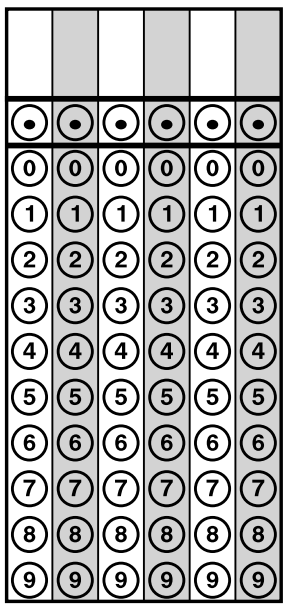
Ⓒ $10 \div 5 = 5$

Ⓓ $16 \div 2 = 8$

Ⓔ $0 \times 6 = 0$

37. A patio is in the shape of a rectangle with a width of 8 feet and a length of 9 feet. What is the area, in square feet?

    Enter your answer in the box.



38. Which **three** comparisons are true?

    Ⓐ $\frac{1}{3} = \frac{3}{6}$

    Ⓑ $\frac{3}{4} = \frac{6}{8}$

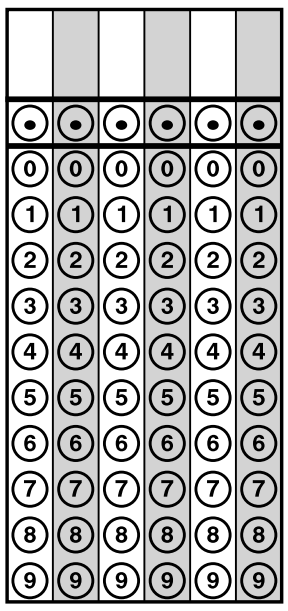
    Ⓒ $\frac{4}{8} = \frac{1}{2}$

    Ⓓ $\frac{1}{4} = \frac{4}{8}$

    Ⓔ $\frac{4}{6} = \frac{2}{3}$

39. Janell has 8 photos on one page of an album. She has 4 photos on each of the other 9 pages. How many photos are in Janell's album?

Enter your answer in the box.



40. Select the **two** fractions that are equivalent to 1.

Ⓐ $\frac{3}{1}$

Ⓑ $\frac{2}{2}$

Ⓒ $\frac{4}{3}$

Ⓓ $\frac{6}{6}$

Ⓔ $\frac{1}{8}$

41. **Part A**

Fred has 36 stuffed animals that he will give to 9 different friends. He will give an equal number of stuffed animals to each friend. Fred uses the equation 36 ÷ 9 = ? to find how many stuffed animals he will give to each friend.

He thinks the ? equals 3. Explain why he is wrong.

Enter your explanation in the box provided.

GO ON ▶

Part B

Find the correct answer using Fred's equation.

Enter your answer in the box provided.

Part C

How would you use multiplication to find the number of stuffed animals Fred gives each friend?

Enter your answer in the box provided.

Use the information provided to answer Part A through Part D for question 42.

42. The Lions and Bulldogs played a basketball game. The scoreboard is shown.

Scoreboard

	1st Half	2nd Half	Score
Lions	28	35	
Bulldogs	32	29	

Part A

How many total points did the Lions score?

Ⓐ 51
Ⓑ 53
Ⓒ 61
Ⓓ 63

Part B

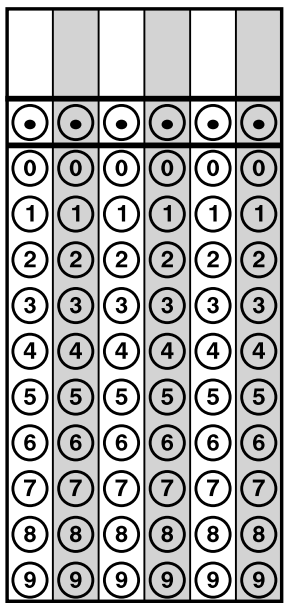
How many total points did the Bulldogs score?

Ⓐ 51
Ⓑ 53
Ⓒ 61
Ⓓ 63

Part C

When the first half ended, how many more points did the Bulldogs have than the Lions?

Enter your answer in the box.



Part D

The top two scorers for the Lions scored 25 points and 12 points.

How many points did the rest of the team score?

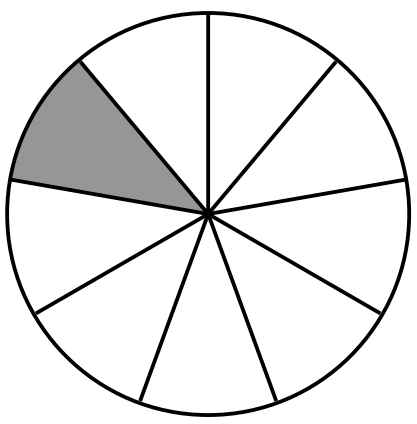
Show the steps you used to solve the problem.

Enter your answer and your work in the box provided.

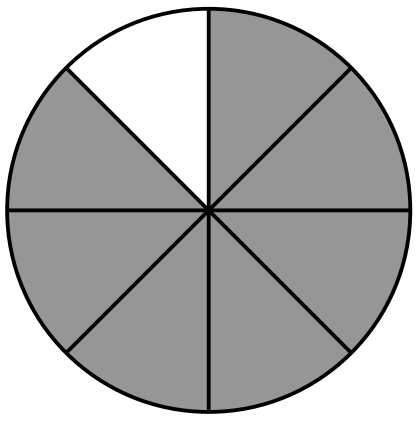
GO ON ▶

43. Which circle is divided into 8 equal parts and has $\frac{1}{8}$ **shaded**?

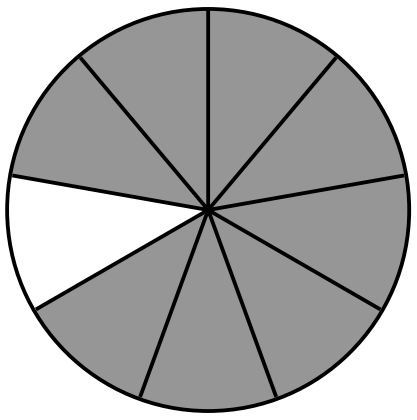
Ⓐ **Circle**



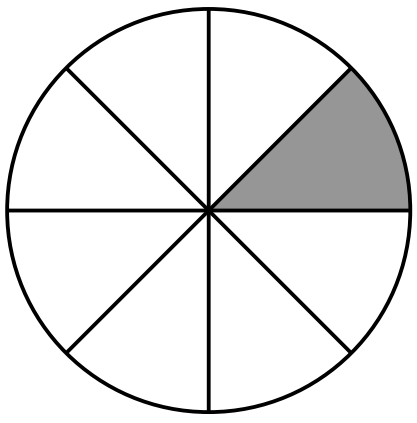
Ⓑ **Circle**



Ⓒ **Circle**



Ⓓ **Circle**



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STATE BOARD OF ELEMENTARY AND SECONDARY EDUCATION
TEST SECURITY POLICY[1]

The State Board of Elementary and Secondary Education approved a Test Security Policy on December 10, 1998. This has been periodically revised.

The Board of Elementary and Secondary Education holds the test security policy to be of utmost importance and deems any violation of test security to be serious.

The State Superintendent of Education may disallow test results that may have been achieved in a manner that is in violation of test security.

In cases in which test results are not accepted because of a breach of test security or action by the Louisiana Department of Education, any programmatic, evaluative, or graduation criteria dependent upon the data shall be deemed not to have been met.

Any teachers or other school personnel who breach test security or allow breaches in test security shall be disciplined in accordance with the provisions of R.S. 17:416 et seq., R.S. 17:441 et seq., R.S. 17:81.6 et seq., policy and regulations adopted by the Board of Elementary and Secondary Education, and any and all laws that may be enacted by the Louisiana Legislature.

1 Excerpts from *Bulletin 118*

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