

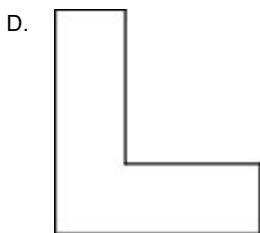
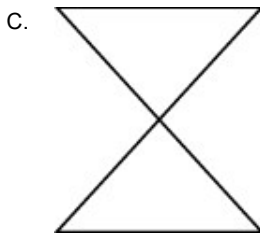
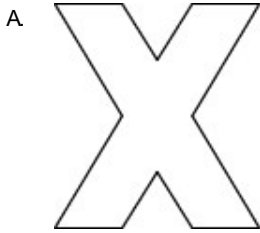
TEST NAME: Brain Breakfast Practice (Geometry and Two Step Word Problems)
TEST ID: 2714828
GRADE: 03 - Third Grade
SUBJECT: Mathematics
TEST CATEGORY: My Classroom

Student: _____
Class: _____
Date: _____

1. Which describes why the figure below is a parallelogram?



- A. It has 4 sides.
 - B. It has 4 right angles.
 - C. It has parallel opposite sides.
2. Mrs. Jones picked a shape out of a bag. The shape she pulled out was a quadrilateral. Which shape did she choose?

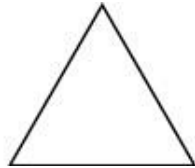
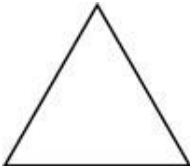


3. Two polygons were combined, without overlapping, to make the polygon below.

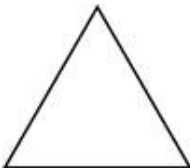


Which figures could be combined to make the polygon shown?

A.



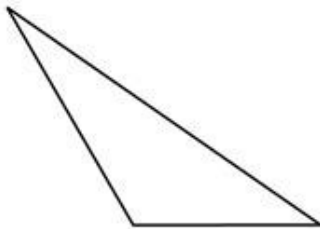
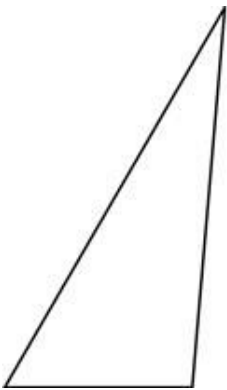
B.



C.



D.

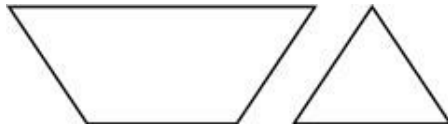


4. ¿Cuántas de las señales son cuadradas?



- A. 0
B. 1
C. 2
D. 4

5. Gabi cut out the following shapes.



Which figure can Gabi make by combining the shapes, without overlapping?

A.



B.



C.



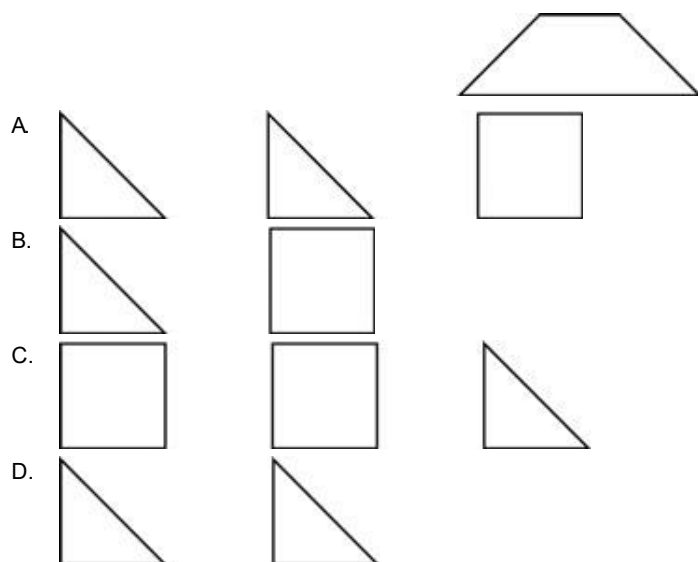
D.



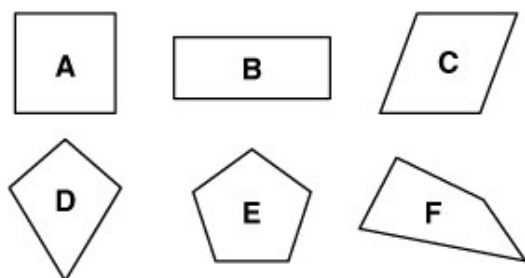
6. Which polygon always has four sides and can have two obtuse angles?

- A. pentagon
- B. rectangle
- C. rhombus
- D. square

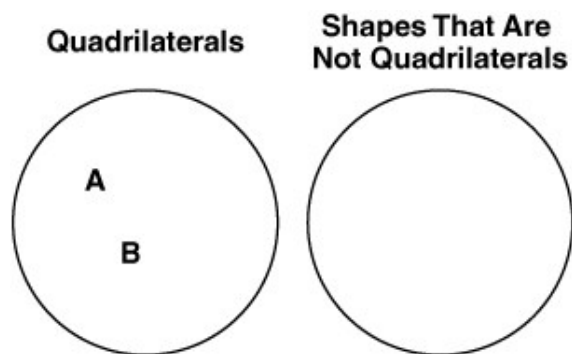
7. Which shapes can be combined to form this shape?



8. Jenna will sort these shapes into different groups.

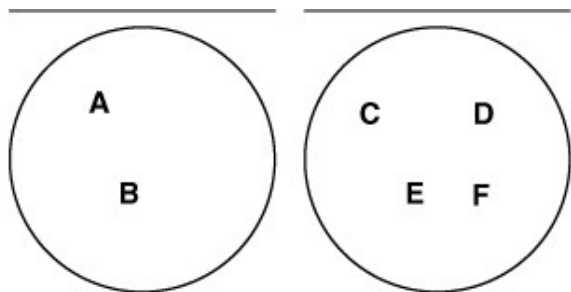


Part A. First Jenna wants to sort the shapes into quadrilaterals and shapes that are not quadrilaterals. She has sorted shapes A and B so far. Write letters C, D, E, and F in the circles to show how Jenna should sort these shapes.



Part B. Draw a picture of another shape that is NOT a quadrilateral.

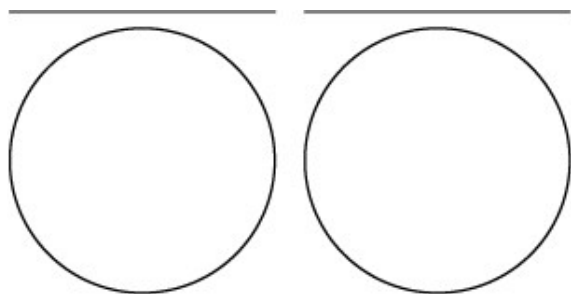
Part C. Next Jenna sorts the shapes into two new groups, as shown below.



Write labels on the blank lines above the circles to show how Jenna sorted the shapes.

Part D. Draw another shape that belongs in the circle on the right.

Part E. Use the blank circles below to sort the shapes into two new groups. Remember to write labels on the blank lines above each circle to show how you sorted the shapes.



9. Albert made a map of a downtown walking tour. The tour started and ended at the same place. It had four sides and four square corners. On the map, two sides were 60 centimeters long, and two sides were 30 centimeters long. What is the shape of the walking tour?
- A. circle
 - B. square
 - C. triangle
 - D. rectangle

10. What is the rule for the pattern below?

2, 10, 8, 16, 14, 22, 20, 28, 26

- A Subtract 2, then multiply 5.
- B Multiply 5, then subtract 2.
- C Subtract 8, then add 2.
- D Add 8, then subtract 2.

11. Maria said that the sum of two odd numbers is always even. Which equations prove she is correct?

- A $7 + 9 = 16$ and $3 + 7 = 10$
- B $2 + 7 = 9$ and $3 + 8 = 11$
- C $4 + 4 = 8$ and $6 + 6 = 12$

12. If the pattern below continues, what number comes next?

2, 7, 12, 17, 22, ...

- A 5
- B 27
- C 32

13. Which numbers would be next if the pattern below continued?

15, 30, 45, 60, ____, ____, ____

- A 75, 90, 105
- B 65, 70, 75
- C 65, 80, 95
- D 65, 75, 80

14. Frances is riding a tour bus at an amusement park. The bus makes several stops during the trip as shown in the table.

Tour Bus

Number of Stops	Length of Bus Trip (minutes)
1	3
2	6
3	9
4	12

Which rule **BEST** describes the numbers in the table?

- A. Add 2 to the number of bus stops to get the length.
 - B. Subtract 2 from the number of bus stops to get the length.
 - C. Divide the number of bus stops by 3 to get the length.
 - D. Multiply the number of bus stops by 3 to get the length.
15. What rule is used to make the pattern below?

72, 64, 56, 48, 40, . . .

- A. Add 8 each time.
 - B. Subtract 8 each time.
 - C. Multiply by 8 each time.
 - D. Divide by 8 each time.
16. The following numbers form a pattern:

0, 6, 12, 18, 24, 30, 36...

Part A: What are the next two numbers in the pattern? Show or explain your work.

Part B: Explain why all of the numbers are even.

Part C: Explain why all of the numbers are multiples of 3.

17. Kira started with 1 and used a rule to create the pattern below. Which rule could Kira have used?

1, 5, 9, 13

- A. plus 4
- B. plus 5
- C. times 5
- D. minus 4

18. Kim noticed a pattern in the multiplication facts below.

- 4×6
- 6×6
- 8×2
- 10×2

Which describes the pattern Kim noticed?

- A. Multiplying even numbers by even numbers will always give an even product.
 - B. Multiplying even numbers by even numbers will always give an odd product.
 - C. Multiplying odd numbers by even numbers will always give an even product.
 - D. Multiplying odd numbers by odd numbers will always give an odd product.
19. Four students shared 3 boxes of markers. There were 12 markers in each box. Each student got the same number of markers. How many markers did each student get?
- A. 3
 - B. 4
 - C. 8
 - D. 9

20. A student read 7 pages of a book each day for 3 days. The total number of pages in the book is 100.

Part A Write an equation using p to represent the number of pages the student has left to read.

Part B How many pages does the student have left to read? Show or explain your work.

21. A box has 4 rows of pots. There are 8 pots in each row. A gardener planted 2 bean seeds in each pot.

Part A Write an equation to represent the total number of bean seeds the gardener planted. Use B to represent the total number of bean seeds planted.

Part B What is the total number of bean seeds the gardener planted?

22. Wanda is selling chocolate bars for a school fund-raiser.

- She has 3 boxes containing 100 bars each.
- She sold 142 bars.

How many bars does Wanda have left to sell?

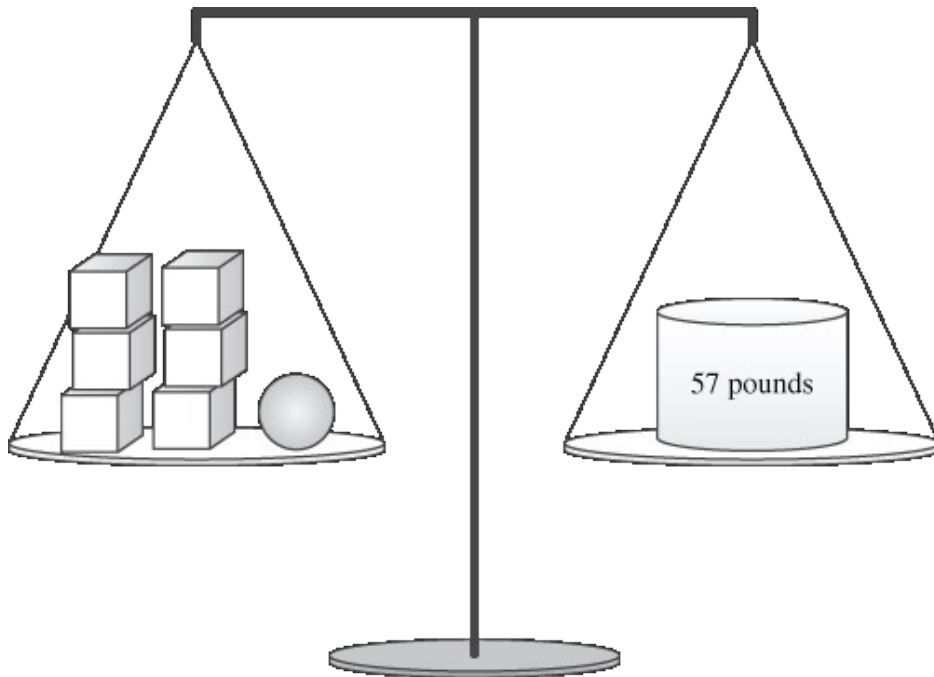
- A. 42
- B. 145
- C. 158
- D. 242

23. There are 24 boxes. Two of the boxes are empty. Each of the other boxes contains 2 erasers. How many erasers are there altogether?

- A. 22
- B. 24
- C. 44
- D. 48

24. El lunes, Lana salió de su casa y caminó 6 cuadras hasta la escuela, 5 cuadras hasta la biblioteca, 2 cuadras hasta el correo y, luego, se devolvió para su casa por la misma ruta. ¿Cuántas cuadras caminó Lana en total?
- A. 11
 - B. 13
 - C. 22
 - D. 26
25. Harry and Sam each have 2 apple trees and 2 pear trees in their gardens. How many trees do they have in all?
- A. 4
 - B. 6
 - C. 8
 - D. 16
26. Zander set a goal to read 36 books in one year. He read 3 books each month for the first 4 months of the year. Which equation shows, b , how many more books Zander needs to read to reach his goal?
- A. $36 \div 3 = b$
 - B. $36 \div 12 = b$
 - C. $4 \times 3 \times b = 36$
 - D. $3 \times 4 + b = 36$

27. The picture below shows that the total weight of six identical boxes and one ball is 57 pounds.



The ball weighs 15 pounds. What is the weight, in pounds, of each box?

- A. 6
 - B. 7
 - C. 12
 - D. 42
28. **María está escribiendo un cuento de 500 palabras para un concurso. Ella escribió 230 palabras el lunes y 132 palabras el martes. ¿Cuál de las siguientes expresiones numéricas se puede usar para hallar el número de palabras que ella debe escribir el miércoles para terminar su cuento de 500 palabras?**

- A. $500 - \square = 230 - 132$
- B. $230 + 132 + \square = 500$
- C. $500 + 230 + 132 = \square$
- D. $500 - 230 = 132$

29. Amy went shopping and bought shoes for \$58, sunglasses for \$12, and a coat. She spent \$160. Amy found the cost of the coat by solving $58 + 12 + c = 160$. How much money did Amy spend on the coat if c = the cost of the coat?

- A. \$100
- B. \$90
- C. \$70
- D. \$60

30.

There are 9 bears at the zoo. The zookeeper gives each bear 5 fish to eat. One bear does not eat 2 of his fish. Which equation represents how many fish, f , were eaten?

- A. $9 \times 5 - 2 = f$
- B. $9 + 5 - 2 = f$
- C. $9 \times 5 \times 2 = f$

31. Mr. Keller's class collected 45 cans on Monday and 125 on Tuesday. The class wants to collect a total of 380 cans. How many more cans do they need to collect?

- A. 210
- B. 170
- C. 550

32. A school bus has seats for 54 children. Twenty boys and 18 girls got on the bus. How many empty seats are there?

33. Sandra gathered books to donate to the library. She gathered

- 13 books on Tuesday
- 11 books on Wednesday
- 6 on Thursday
- 18 on Friday

Her teacher packaged her books into boxes that could hold 8 books. How many boxes did she use?

- A. 48
- B. 6
- C. 5

34. Christine has 15 cookies. She bakes 21 more cookies. If she divides all of the cookies evenly among 3 friends, how many cookies will each friend get?

- A. 5
- B. 7
- C. 12
- D. 36

35. Jack has 4 bags of model cars with 7 cars in each bag. Rob has 6 bags of model cars with 8 cars in each bag. Which statement is true?

- A. Jack has 20 more cars than Rob.
- B. Jack has 76 more cars than Rob.
- C. Rob has 20 more cars than Jack.
- D. Rob has 76 more cars than Jack.

36. Newbury Elementary School students collected old phone books for recycling. On Monday and Tuesday, they collected a total of 406 books. From Wednesday through Friday, they collected twice as many as Monday and Tuesday. **About** how many phone books did they collect altogether?

- A. 400
- B. 800
- C. 1,000
- D. 1,200

37. A boy has 3 piles of rocks. Each pile has 7 rocks. A friend brings more rocks. Now there are 32 rocks total. Which equation shows how to find the number of rocks, r that the friend brings?

- A. $3 + 7 + r = 32$
- B. $3 \times 7 + 32 = r$
- C. $7 \times 3 + r = 32$
- D. $32 \div 7 - r = 3$

38. **Part A**

Brady bought 4 packs of crayons. His friend gave him 9 more crayons. Brady now has 41 crayons. Write an equation using p to represent the number of crayons in each pack. How many crayons were in each pack?

Part B

Brady will give his sister any crayons he has left over after he puts all of the 41 crayons into groups of 12. Draw a model to show how Brady could group the crayons. How many crayons will his sister get?

39. Chris bought a pack of 48 pencils. He will give an equal number to each of 6 friends. Write a multiplication equation that Chris could use to find the number of pencils to give each friend.
40. A student wrote the expression $12 \div 2$. Which expression would help the student find the answer?
- A. 12×2
 - B. $12 + 6$
 - C. 6×2
 - D. $12 + 2$

41. A student wants to find the quotient to $15 \div 5$. Which expressions would help the student find the answer?

- A. 5×3
- B. $15 - 5$
- C. 15×3
- D. $15 + 5$

42. The two equations below are related.

$$\begin{aligned} 96 \div 8 &= \square \\ 8 \times \square &= 96 \end{aligned}$$

What number goes in the box?

43. Which equation has the same missing number as $24 \div 4 = \square$?

- A. $4 \times \square = 24$
- B. $4 + \square = 24$
- C. $4 \times 24 = \square$
- D. $24 - 4 = \square$

44. Jason had a ribbon that was 16 inches long. He cut it into 4 equal pieces. Which number sentence could Jason use to find the length of each piece?

- A. $16 + 4 = ?$
- B. $? + 4 = 16$
- C. $16 \times 4 = ?$
- D. $4 \times ? = 16$

45. Which expression cannot be used to solve $12 \div \square = \square$?

A. 1×12

B. 3×4

C. 5×7

D. 6×2

46. Alexis has to divide 42 by 6.

Part A. Draw an array Alexis could use to solve this problem.

Part B. What is the answer to Alexis's division problem?

Use words, numbers, and/or pictures to show your work.

47. **Jessica wants to put 60 books evenly on 5 bookshelves. Which equation could she use to help her find the number of books that should be placed on each shelf?**

A. $5 \times n = 60$

B. $5 \div 60 = n$

C. $n \div 60 = 5$

D. $60 \times n = 5$

48. What should a student know in order to solve $72 \div 8$?

A. What numbers add up to equal 72?

B. What number multiplied by 8 equals 72?

C. What number multiplied by 72 equals 8?

D. How to divide numbers greater than 72?

49. A continuación se muestra un enunciado matemático verdadero.

$$8 \times \square = 80$$

¿Cuál de las siguientes operaciones se puede usar para hallar la número que va en la \square ?

- A. $80 - 8$
- B. 80×8
- C. $80 + 8$
- D. $80 \div 8$

50. Leslie has 27 stamps in her stamp collection. She wants to put them in 3 equal rows. Which equation can she use to find the number of stamps that will be in each row?

- A. $3 \times 27 = \square$
- B. $3 \div \square = 27$
- C. $3 \times \square = 27$
- D. $\square \div 3 = 27$