

TEST NAME: **Brain Breakfast Multiplication**
TEST ID: **3199479**
GRADE: **03 - Third Grade**
SUBJECT: **Mathematics**
TEST CATEGORY: **My Classroom**

Student: _____
Class: _____
Date: _____

1. Which expression is equal to 8×9 ?

- A. $4 \times 4 + 4 \times 5$
- B. $8 \times 4 + 8 \times 5$
- C. $4 \times 5 \times 8$
- D. $8 \div 9$

2. Which expression could be used to solve $4 \times 5 \times 3$?

- A. 4×8
- B. 15×3
- C. 20×3
- D. 4×20

3. Sari, Alan, Marquis, and Jose had a contest to see who could run the most. They recorded their results in the table below.

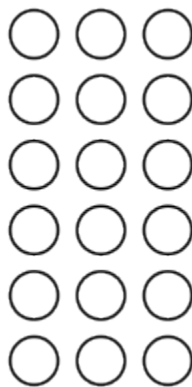
Runner	Miles Run
Sari	3 miles for 4 days each
Alan	5 miles for 2 days each
Marquis	3 miles for 3 days each
Jose	4 miles for 3 days each

Who ran the same amount?

- A. Sari and Alan
- B. Alan and Marquis
- C. Marquis and Jose
- D. Jose and Sari

4. Susan multiplied 4×8 by breaking apart the numbers. Which shows a way to solve her problem?
- A. 4×8
 $(4 + 2) \times (4 + 6)$
 $6 + 10$
 16
- B. 4×8
 $(4 \times 2) + (4 \times 6)$
 $8 + 24$
 32
- C. 4×8
 $(4 + 4) \times (4 + 2)$
 8×6
 48
- D. 4×8
 $(4 \times 2) \times (4 \times 2)$
 8×8
 64
5. Bob found the value of r in the equation $7 \times 8 = r$. Which expression can Bob use to check his answer?
- A. $(7 + 8) + (7 + 8)$
- B. $(3 \times 7) + (4 \times 7)$
- C. $(3 \times 8) + (4 \times 8)$
- D. $(7 \times 8) + (7 \times 8)$
6. Which number completes the number sentence below?
- $$9 \times 7 = 7 \times \underline{\quad}$$
- A. 9
- B. 23
- C. 63
- D. 441

7. Susan has 3 bags of oranges. In each bag, there are 5 oranges. Each orange has 2 stickers on it. How could Susan find how many stickers there are in all?
- A. Add $3 + 5 = 8$, add $8 + 2 = 10$ stickers.
 - B. Add $5 + 3 = 8$, multiply $8 \times 2 = 16$ stickers.
 - C. Multiply $3 \times 5 = 15$, add $15 + 2 = 17$ stickers.
 - D. Multiply $2 \times 5 = 10$, multiply $10 \times 3 = 30$ stickers.
8. Which equation is true?
- A. $4 \times 6 + 3 \times 6 = 7 + 12$
 - B. $4 \times 6 + 3 \times 6 = 12 + 36$
 - C. $4 \times 6 + 3 \times 6 = 7 \times 6$
 - D. $4 \times 6 + 3 \times 6 = 7 \times 12$
9. Mrs. Palmer showed her class the array below.

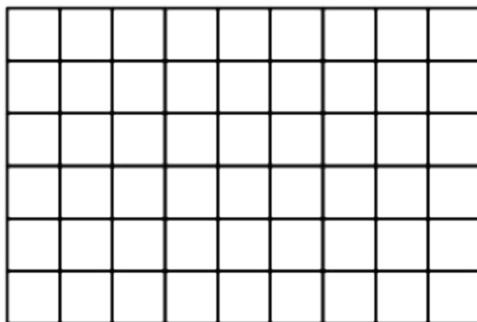


Which expressions represent the array?

- A. $6 + 1$ and $6 + 1$
- B. $3 + 6$ and $6 + 3$
- C. 3×6 and 6×3
- D. 6×1 and 1×6

10. Which expression is equal to $3 \times (4 + 7)$?
- A. $3 + (4 \times 7)$
 - B. $3 \times 4 + 7$
 - C. $(3 \times 4) + (3 \times 7)$
 - D. $(3 + 4) + (3 + 7)$
11. Mrs. Cain wrote $7 + 9 = 16$ to describe the number of green apples plus the number of red apples. Which also shows the sum of the two groups of apples?
- A. $16 - 9 = 7$
 - B. $7 + 16 = 23$
 - C. $9 + 16 = 25$
 - D. $9 + 7 = 16$
12. Which expression gives you the same number as $7 \times 3 \times 2$?
- A. 6×2
 - B. 7×6
 - C. 14×2
 - D. 21×3
13. Which expression is equal to 6×4 ?
- A. $(3 \times 4) + (3 \times 1)$
 - B. $6 \times (3 \times 1)$
 - C. $(3 \times 4) + (3 \times 4)$
 - D. $(3 \times 3) \times 4$

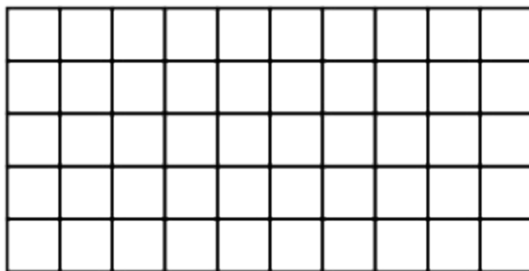
14. The expression 9×6 describes the array below.



Which expression also describes the array?

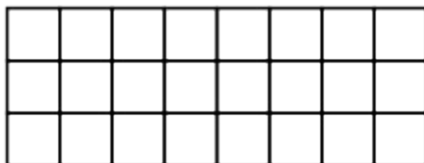
- A. 6×6
 - B. 6×9
 - C. 9×9
 - D. 10×6
15. Josh used the properties of multiplication to simplify an expression. Which choice shows that Josh correctly used the properties to create an equation?
- A. $8 \times 3 \times 8 \times 2 = 8 \times 5$
 - B. $8 \times 5 + 8 \times 5 = 8 \times 5$
 - C. $3 \times 5 + 3 \times 4 = 3 \times 9$
 - D. $3 + 9 \times 3 + 9 = 3 \times 9$

16. The expression 10×5 describes the array below.



What is another expression to describe the array?

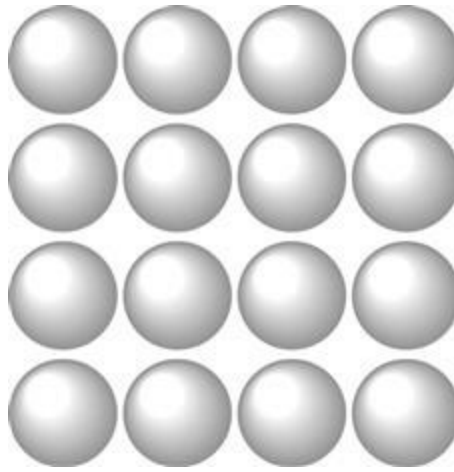
- A. 5×5
 - B. 5×10
 - C. 10×10
 - D. 10×6
17. The expression 8×3 describes the array below.



Which expression also describes the array?

- A. 3×3
- B. 3×8
- C. 8×8
- D. 7×3

18. Taylor made this array of circles.



What is another array that contains the same number of circles?

- A. 20 balls arranged into a 4×5 array
 - B. 16 balls arranged into an 8×2 array
 - C. 15 balls arranged into a 3×5 array
 - D. 12 balls arranged into a 4×3 array
19. What is one way to find the sum of 7×3 and 3×6 ?

- A. $3 \times (7 + 6)$
- B. $7 \times (3 + 6)$
- C. $3 \times 7 \times 6 \times 3$
- D. $(7 + 3) - (3 + 6)$

20. Which equation is true?

- A. $3 \times 5 = 15 \times 3$
- B. $9 \div 3 = 3 \div 9$
- C. $4 \times 3 = 3 + 4$
- D. $8 \times 6 = 6 \times 8$

21. There are 10 children at a pizza party. Each child will get 2 slices of pizza. Each pizza has 8 slices. Which expression represents the number of pizzas needed?
- A. $10 \div 8 \div 2$
 - B. $(2 \times 10) \div 8$
 - C. $10 \times 8 \div 2$
 - D. $10 \div (8 \times 2)$
22. Javier needed to solve 8×6 . How could he rewrite his problem to solve it?
- A. $(4 \times 6) + (4 \times 6)$
 - B. $(8 + 6) \times (8 + 6)$
 - C. $8 \times (3 \times 3)$
 - D. $6 \times (4 \times 4)$
23. Which expression is equal to the expression below?

$$3 \times 5 + 4 \times 5$$

- A. $(3 + 4) \times (5 + 5)$
- B. $(3 + 4) \times 5$
- C. $(3 + 5) \times (4 + 5)$
- D. $(3 + 5) \times 7$

24. Seth bought some bags of fruit at the store.

Fruits	Amounts
apples	2 bags of 5 each
pears	3 bags of 4 each
oranges	4 bags of 2 each
lemons	5 bags of 2 each

Of which fruits did he buy the same number?

- A. apples and pears
- B. oranges and pears
- C. apples and lemons
- D. oranges and lemons

25. A student needs to choose a box that would have the same product as the shaded box in this multiplication chart.

×	5	6	7	8	9
5	5×5	5×6	5×7	5×8	5×9
6	6×5	6×6	6×7		6×9
7	7×5	7×6	7×7	7×8	7×9
8	8×5	8×6	8×7	8×8	8×9
9	9×5	9×6	9×7	9×8	9×9

Which box should the student choose?

- A. 7×6
- B. 7×7
- C. 8×6
- D. 8×7

26. Which expression is equal to $3 \times 4 \times 2$?

- A. $7 + 2$
- B. 7×2
- C. $12 + 2$
- D. 12×2

27. What is the value of n in the equation below?

$$3 \times (4 \times 6) = (3 \times n) \times 6$$

- A. 3
- B. 4
- C. 6
- D. 18

28. Which equation is equal to 14×3 ?

- A. $4 + 10 \times 3$
- B. $10 + 4 \times 3$
- C. $10 + 3 \times 4 + 3$
- D. $10 \times 3 + 4 \times 3$

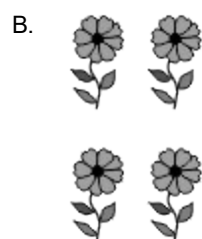
29. What is the value of m in the equation below?

$$2 \times m = 8 \times 2$$

- A. 16
- B. 10
- C. 8
- D. 2

30. There are 4 flower pots. Each pot holds 6 flowers. Which shows a way to find the total number of flowers?
- A. $(4 \times 3) + (4 \times 3)$
 - B. $(4 \times 2) + (4 \times 3)$
 - C. $(6 \times 4) + (4 \times 6)$
 - D. $(4 \times 4) + (6 \times 6)$
31. Which equation is equal to $9 \times 3 = 27$?
- A. $3 \times 9 = 27$
 - B. $9 \times 27 = 3$
 - C. $9 \div 27 = 3$
 - D. $9 \div 3 = 3$
32. Sarah was working on a math worksheet. Which could be used to help her solve 6×12 ?
- A. $(6 \times 10) + (6 \times 2)$
 - B. $(6 + 10) + (6 + 2)$
 - C. $(6 + 10) \times (6 + 2)$
 - D. $(6 \times 10) \times (6 \times 2)$
33. Sam wants to find the correct answer to $6 \times 7 \times 4$. Which step would not help him find the correct answer?
- A. Multiply 28×7 .
 - B. Multiply 42×4 .
 - C. Multiply 6×4 , then multiply the answer by 7.
 - D. Multiply 7×4 , then multiply the answer by 6.

34. Ryan solved the problem $48 \div 6$ by multiplying. Which expression did he use?
- A. 6×7
 - B. 6×8
 - C. 48×7
 - D. 48×8
35. Which number sentence is equal to 2×8 ?
- A. $8 \div 2$
 - B. $8 - 2$
 - C. $8 + 2$
 - D. 8×2
36. What expression is equal to $6 \times 5 + 6 \times 3$?
- A. $30 \times 18 + 30 \times 18$
 - B. $6 + 5 \times 6 + 3$
 - C. $11 + 18$
 - D. 6×8
37. Marco planted 3 rows of flowers with 4 flowers in each row. Jared planted a garden with the same number of flowers as Marco's garden. Which could be Jared's garden?



38. Which is equal to the expression below?

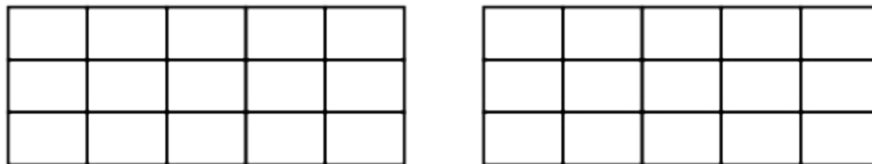
$$5 \times 6 + 5 \times 3$$

- A. $5 + 9$
- B. 5×9
- C. $30 + 3$
- D. 30×15

39. Which expression is equivalent to $3 \times 4 + 3 \times 1$?

- A. $7 + 3$
- B. $12 + 1$
- C. 3×5
- D. 9×4

40. Which equation matches the picture below?



- A. $3 \times 5 \times 2$
- B. $3 \times 5 + 2$
- C. $3 + 5 + 2$
- D. $3 + 5 \times 2$

41. On Monday, the teacher gave 21 pencils to 7 students. Each student got the same number of pencils. On Tuesday, the teacher gave 21 pencils to 3 students. Each student got the same number of pencils. How many pencils did each of the 3 students get on Tuesday?

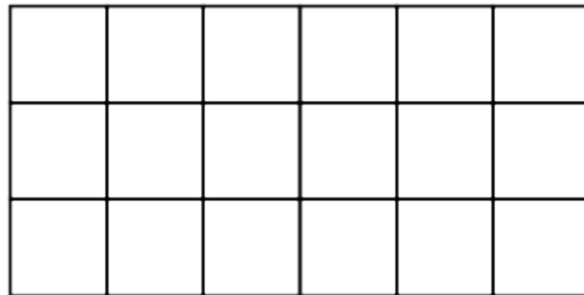
A. 6
B. 7
C. 18
D. 24

42. What is the missing value in the equation below?

$$2 \times 5 \times 4 = ? \times 5 \times 2$$

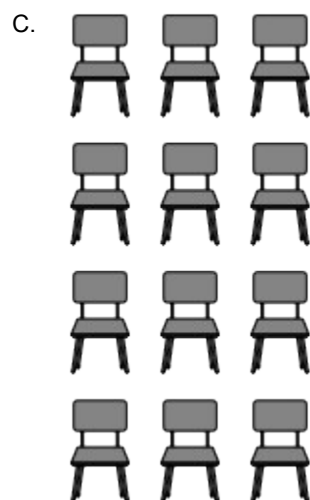
A. 10
B. 8
C. 6
D. 4

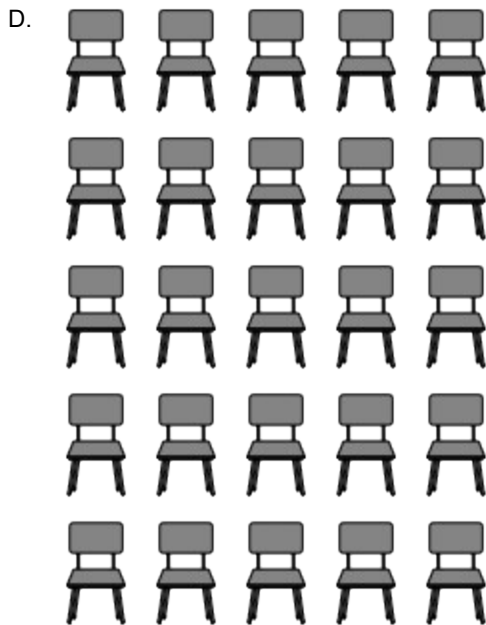
43. Which expressions describe the array below?



A. 6×3 and 3×6
B. 6×6 and 6×1
C. 3×3 and 3×1
D. 3×5 and 5×3

44. There are 3 rows of chairs in the music classroom. Each row has 5 chairs. Which represents a classroom with the same number of chairs?





45. Which answer choice shows two correct ways to arrange 21 pennies in equal rows?

- A. 2 rows of 1, or 1 row of 2
- B. 7 rows of 3, or 3 rows of 7
- C. 8 rows of 3, or 3 rows of 8
- D. 20 rows of 1, or 1 row of 20

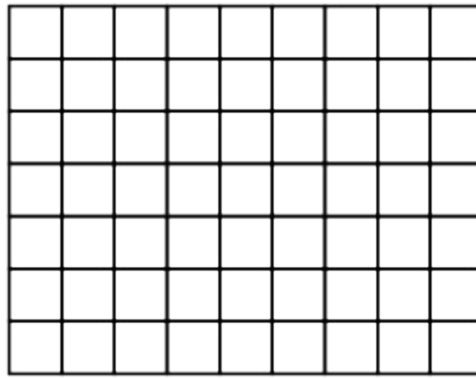
46. **Jana knew there were 6 weeks until her vacation. She calculated the number of days in the following way:**

$$6 \times 7$$

What is another way to calculate the number of days until her vacation?

- A. $6 + 7$
- B. $7 - 6$
- C. $6 + 6 + 6 + 6 + 6 + 6$
- D. $7 + 7 + 7 + 7 + 7 + 7$

47. The expression 9×7 describes the array below.



Which expression also describes the array?

- A. 7×7
- B. 7×9
- C. 9×9
- D. 8×9

48. Which is another way to write $(4 \times 3) \times 2$?

- A. $(3 \times 2) + (4 \times 2)$
- B. $4 \times (3 \times 2)$
- C. $4 \times (3 + 2)$
- D. $(3 + 4) \times (4 + 3)$

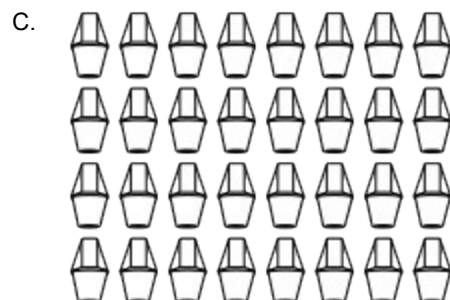
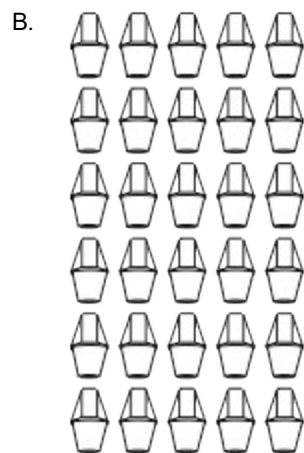
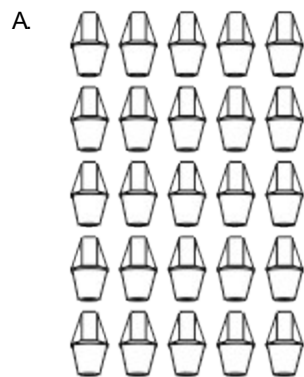
49. Which equation is true?

- A. $4 \times 17 = (4 + 10) \times (4 + 7)$
- B. $7 \times 8 = (3 \times 4) + (4 \times 4)$
- C. $5 \times 10 = 10 \times (2 \times 3)$
- D. $6 \times 9 = 6 \times (6 + 3)$

50. Amy explained to Joe that when multiplying two numbers, the order in which the numbers are written does not matter. Which set of equations could Amy use as an example?

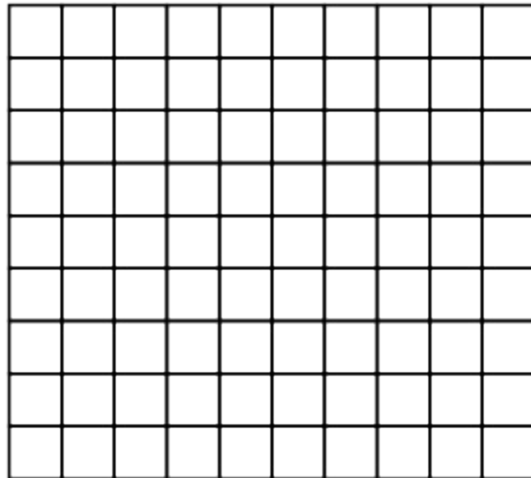
- A. $6 \times 7 = 42$ and $14 \times 3 = 42$
- B. $6 \times 7 = 42$ and $42 \div 6 = 7$
- C. $6 \times 7 = 42$ and $7 \times 6 = 42$
- D. $(3 \times 2) \times 7 = 42$ and $6 \times 7 = 42$

51. Mrs. Fernandez has 27 erasers. She organized them into 3 rows of 9 erasers each. Which shows another way Mrs. Fernandez could organize the erasers?





52. The expression 9×10 describes the array below.



Which expression also describes the array?

- A. 9×9
- B. 10×9
- C. 10×10
- D. 8×10

53. Which method gives the same result as 8×6 ?

- A. Add 2×6 and 4×6 .
- B. Add 2×6 and 6×6 .
- C. Add 3×2 and 5×6 .
- D. Add 2×2 and 4×3 .

54. Lacey has a bookcase with 6 shelves.

- She used only 4 of the shelves.
- She put 6 books on each shelf.

Which choice shows another way Lacey could put the same number of books in the bookcase, but this time, using all of the shelves?

- A. 2 books on each shelf
- B. 4 books on each shelf
- C. 10 books on each shelf
- D. 24 books on each shelf

55. Which shows a way to solve 7×26 ?

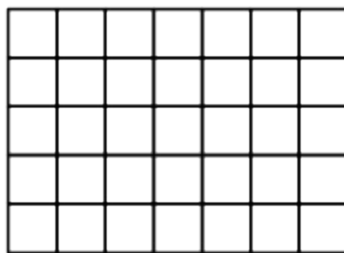
- A. $7 \times 26 = (7 \times 20) + (6 \times 20)$
- B. $7 \times 26 = (7 \times 20) + 26$
- C. $7 \times 26 = (7 \times 20) + 6$
- D. $7 \times 26 = (7 \times 20) + (7 \times 6)$

56. What is the value of m ?

$$(8 \times 6) \times 2 = m \times (6 \times 2)$$

- A. 48
- B. 14
- C. 12
- D. 8

57. The expression 5×7 describes the array below.



Which is another expression to describe the array?

- A. $5 + 7$
- B. $7 + 5$
- C. 5×5
- D. 7×5

58. Which expression is equal to 3×8 ?

- A. $(3 + 8) \times (8 + 3)$
- B. $(3 + 5) \times (3 + 3)$
- C. $(3 \times 5) + (3 \times 3)$
- D. $(3 \times 8) + (3 \times 2)$

59. Which number sentence is true?

- A. $6 \times 1 = 1 \times 6$
- B. $4 \times 1 = 0 \times 4$
- C. $6 \times 1 = 0$
- D. $4 \times 0 = 4$

60. Which could be used as the first step in solving $3 \times 4 \times 5$?

- A. 7×5
- B. 3×20
- C. 3×9
- D. 4×8