

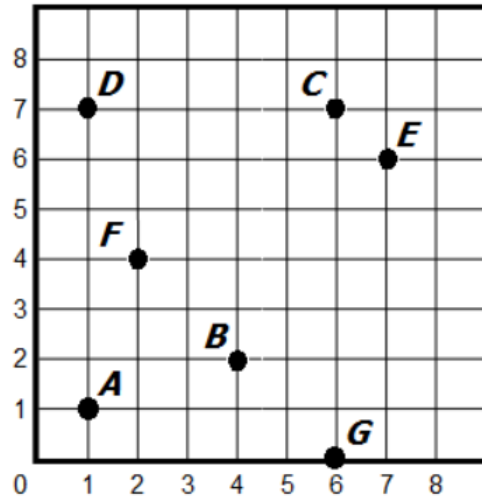
Penny Sikes 5th and 6th Grade Mathematics Tournament

Sponsored by Morris Bank

2025 5th Grade Individual Test

- 1) Make sure your name and your grade are correct on the answer sheet.
- 2) NO CALCULATORS!
- 3) DO NOT OPEN THIS TEST BOOKLET UNTIL INSTRUCTED TO DO SO BY THE TEST MONITOR.
- 4) If you must leave to go to the restroom, raise your hand and a monitor will escort you to the nearest restroom. Remember you have a time limit.
- 5) Read each problem carefully and mark each answer on your answer sheet.
- 6) Each correct answer on the test will be counted as one point on your individual score.
- 7) If individuals have the same written test score, ties will be broken by determining which student gave correct answers to the most difficult item(s) on the test.
- 8) When the individual testing is over, please make sure you turn in your pencil and scantron. You may take your test and scratch work with you.

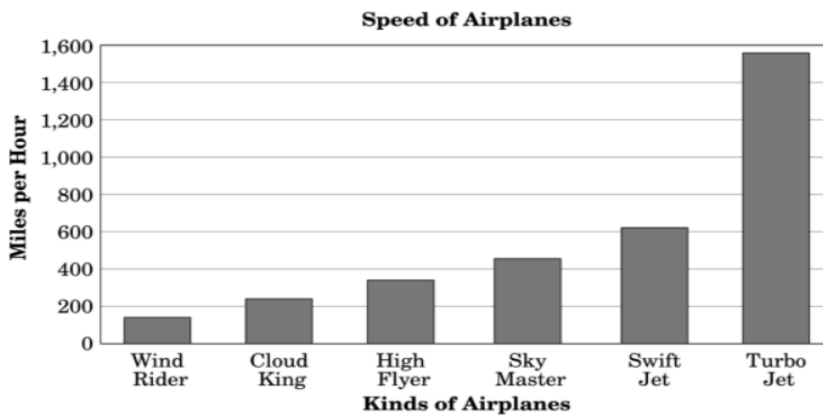
5. Using the coordinate grid below for reference, answer the following question:



Which of the following points have an x-coordinate value of 7?

- (a) Point E (b) Point F (c) Point C (d) Point D

6. Which plane has a speed of *about* 10 miles per minute?



- (a) Wind Rider (b) High Flyer (c) Swift Jet (d) Turbo Jet

7. Which of the following is 8.91 when rounded to the nearest hundredth?

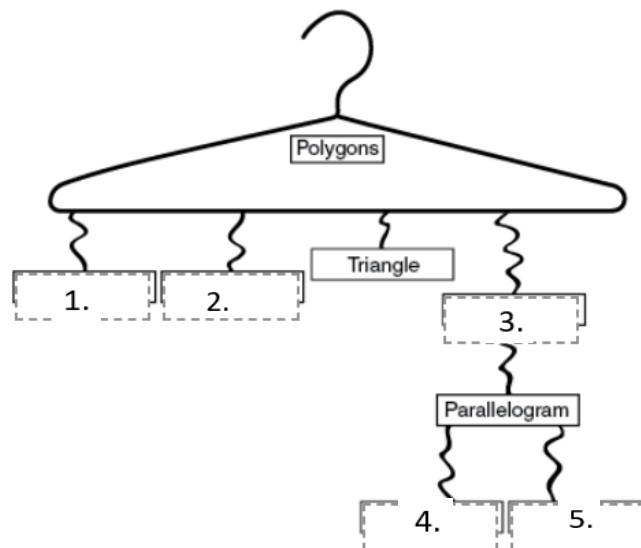
- (a) 8.833 (b) 8.919 (c) 8.915 (d) 8.908

8. Two trains are traveling toward each other on the same track.
- Train A departs from City X at 7:00 AM, traveling at a speed of 60 miles per hour.
 - Train B departs from City Y at 7:30AM, traveling at a speed of 80 miles per hour.
 - The distance between City X and City Y is 240 miles.

At what time will the two trains meet?

- (a) 9:00AM (b) 9:15AM (c) 9:30AM (d) 10:00AM

9. Sofia is creating a mobile using a wire hanger and index cards. Each index card contains the name of one type of polygon. These cards will be attached to each other so that any card hung will have the properties of the card above it. Help Sofia create her mobile by putting the cards below in the correct order.



In number order, which polygons complete the mobile?

- (a) Hexagon, Octagon, Quadrilateral, Rhombus, Kite
(b) Octagon, Hexagon, Quadrilateral, Rhombus, Rectangle
(c) Rhombus, Rectangle, Kite, Quadrilateral, Octagon
(d) Hexagon, Quadrilateral, Octagon, Rectangle, Rhombus

10. The perimeter of one square is twice that of another. If a side of the larger square is 6 cm long, then the area of the smaller square is which of the following?
- (a) 9 square cm (b) 18 square cm (c) 36 square cm (d) 72 square cm
11. Two numerical patterns can be created using the rules provided below.

Rule for Pattern M	Rule for Pattern N
Start with 2, and multiply by 2.	Start with 1, and add 5.

What is the first number that will appear in both patterns?

- (a) 2 (b) 6 (c) 16 (d) 26
12. Which problem could the expression below help solve?
- $$\frac{1}{2} \div 8$$
- (a) How much total feed will 2 chickens eat if each chicken is given $\frac{1}{8}$ pound of feed?
- (b) How much milk will each child get if 8 children share $\frac{1}{2}$ gallon of milk equally?
- (c) If each cake requires $\frac{1}{2}$ cup of milk, how much milk will be used to make 8 cakes?
- (d) Sixteen children are divided into 2 equal groups. If each child receives 8 pieces of candy, how many pieces of candy are required to each group of children?

13. When she left the pizza restaurant, Marci had 25 pizzas to deliver. At her first stop, she delivered five pizzas to a party. At her second stop, she delivered half of the remaining pizzas to a school. At each remaining stop, she would deliver one pizza. How many stops has Marci made so far if she has 7 pizzas left in her car?

- (a) 3 (b) 5 (c) 7 (d) 12

14. Which comparison is true?

- (a) $2.919 > 2.94$ (c) $1.27 > 1.189$
(b) $0.99 < 0.569$ (d) $3.861 < 3.75$

15. Jo used different shaped beads to make a bracelet by repeating the pattern shown below.



Which bead will Jo string after the next ○ bead?

- (a)  (b)  (c)  (d) 

16. Betty has 3 cats and 4 dogs. She feeds each of them one scoop of food twice a day. Which expression can be used to show how many scoops Betty feeds her pets in one day?

- (a) $(2 \times 3) \times 4$ (b) $(2 \times 3) + 4$ (c) $2 + (3 + 4)$ (d) $2 \times (3 + 4)$

17. School is starting and the teacher is giving each student 2 new pencils. She has 8 rows of desks with 4 desks in each row, and only 1 student per desk. Which method(s) below will show her how many pencils she will need?

A: $2 \times 8 = 16$, $16 \times 4 = \boxed{?}$ total number of pencils

B: $2 \times 4 = 8$, $8 \times 8 = \boxed{?}$ total number of pencils

C: $4 \times 8 = 32$, $2 \times 32 = \boxed{?}$ total number of pencils

- (a) Only Method A
- (b) Methods A and B
- (c) Methods B and C
- (d) Methods A, B and C
18. Which of the following list of expressions is ordered in value from smallest to largest?

(a) $\frac{2}{3} - \frac{1}{2}$, $\frac{4}{5} + \frac{1}{10}$, $\frac{1}{3} + \frac{1}{9}$, $\frac{6}{8} - \frac{1}{4}$

(b) $\frac{1}{3} + \frac{1}{9}$, $\frac{6}{8} - \frac{1}{4}$, $\frac{2}{3} - \frac{1}{2}$, $\frac{4}{5} + \frac{1}{10}$

(c) $\frac{6}{8} - \frac{1}{4}$, $\frac{2}{3} - \frac{1}{2}$, $\frac{4}{5} + \frac{1}{10}$, $\frac{1}{3} + \frac{1}{9}$

(d) $\frac{2}{3} - \frac{1}{2}$, $\frac{1}{3} + \frac{1}{9}$, $\frac{6}{8} - \frac{1}{4}$, $\frac{4}{5} + \frac{1}{10}$

19. Lilly, Ava and Marco are playing a game with marbles. Lilly has $\frac{1}{3}$ of the marbles, Ava has $\frac{1}{4}$ of the marbles and Marco has the rest of the marbles. In lowest terms, what fraction of the marbles does Marco have?

(a) $\frac{3}{24}$

(b) $\frac{10}{24}$

(c) $\frac{5}{12}$

(d) $\frac{1}{6}$

20. A farmer is having a problem with fruit flies. She sets up three traps in each of her citrus orchards. She counted the number of fruit flies in each trap and recorded her results in the table below.

	Trap 1	Trap 2	Trap 3
Grapefruit Orchard	23	18	20
Orange Orchard	67	55	49
Tangerine Orchard	32	36	28
Lemon Orchard	12	8	4

According to the data, which orchard has exactly one hundred ten fewer fruit flies than another orchard?

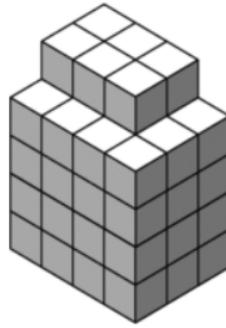
- (a) Grapefruit (b) Orange (c) Tangerine (d) Lemon
21. Sophia baked cookies and gave them to her three friends: Ava, Ethan and Lucas. Each friend ate a different number of cookies and the total number eaten was 36. Here are the clues:

- Ava ate twice as many cookies as Ethan.
- Lucas ate 4 fewer cookies than Ava.

How many cookies did Ava eat?

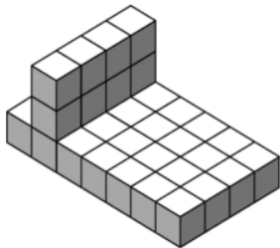
- (a) 8 (b) 14 (c) 16 (d) 18
22. Suppose that n is a whole number greater than zero. If n is multiplied by 1000, the result is the same as writing n followed by _____.
- (a) 3 zeros (c) 4 zeros
- (b) a 1 and 3 zeros (d) a 1 and 4 zeros

23. Richard made the figure shown below by combining two right rectangular prisms. Sam made a figure with the same volume as Richards.

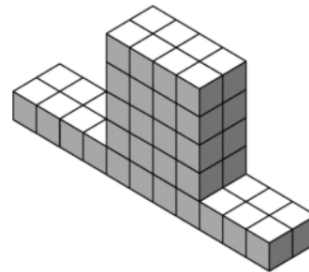


Which of the following models could be Sam's?

(a)



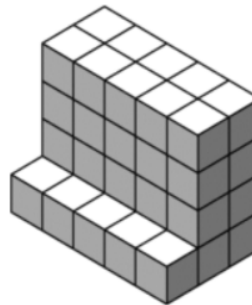
(c)



(b)



(d)



24. Charlie has a jar of coins with quarters, dimes and nickels. The total value of the coins is \$2.05.

- He has twice as many dimes as quarters.
- He has 5 nickels.

How many quarters does Charlie have?

(a) 3

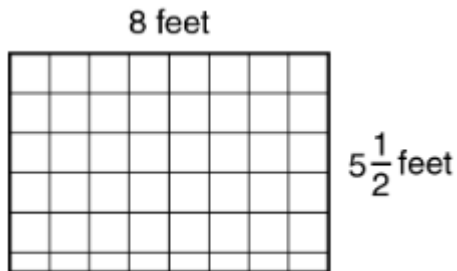
(b) 4

(c) 5

(d) 6

25. Jose swam nine and twenty-seven thousandths meters to the edge of the pool. Which of the following represents his distance swam as a numeral?
- (a) 9.027 (b) 9.207 (c) 9.27 (d) 9,027
26. How many whole numbers less than 100 are 2-digit numbers?
- (a) 88 (b) 89 (c) 90 (d) 91
27. Twelve squares, each with side-length 2, are put together, without overlapping, to form a rectangle. What is the greatest possible perimeter of this rectangle?
- (a) 28 (c) 52
(b) 32 (d) 72
28. A high school golf coach ordered a uniform for each player on his team. The total cost of the uniforms was \$325. If there are 12 golfers on the team, how much did each uniform cost to the nearest dollar?
- (a) \$25 (b) \$27 (c) \$30 (d) \$33
29. Connie makes cloth cat toys. She bought 6 yards of material for \$42.00 and 1 spool of thread for \$2.58. She can make 2 cat toys from each yard of material. Connie sells each toy for \$5.00. How much profit will she make?
- (a) \$12.00 (b) \$14.58 (c) \$15.42 (d) \$18.00

30. A figure representing a rectangular rug 8 feet long and $5\frac{1}{2}$ feet wide is shown.



What is the area of the rug, in square inches?

- (a) 44 (b) 480 (c) 528 (d) 6,336
31. In a puzzle, the following relationships are true:
- A square is equal to the value of two triangles.
 - A triangle is equal to the value of three circles.
 - The value of a circle is 4.

What is the value of the square?

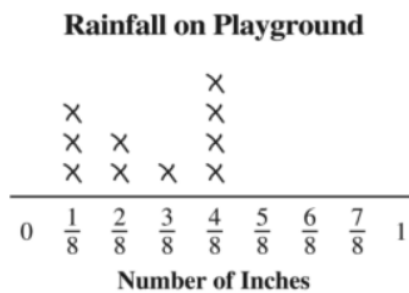
- (a) 8 (b) 12 (c) 24 (d) 48
32. Valerie wrote a number in which the value of the digit 5 is one-tenth the value of the digit 5 in the number shown below.

60,050,000

Which number could Valerie have written?

- (a) 60,000,500 (b) 65,000,000 (c) 60,500,000 (d) 60,005,000

33. Matt's winning time in the 200-meter sprint was 26.03 seconds. Ryan's time was three-quarters of a second greater. What was Ryan's time?
- (a) 25.28 seconds (b) 25.78 seconds (c) 26.28 seconds (d) 26.78 seconds
34. Paul guessed that a total of 3 inches of rain had fallen on a playground during the past 10 days. The line plot below shows the actual number of inches of rain that fell on the playground on each of the past 10 days.

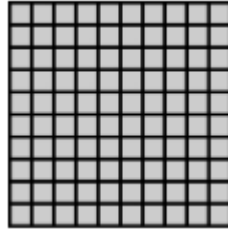


Key
× = 1 day

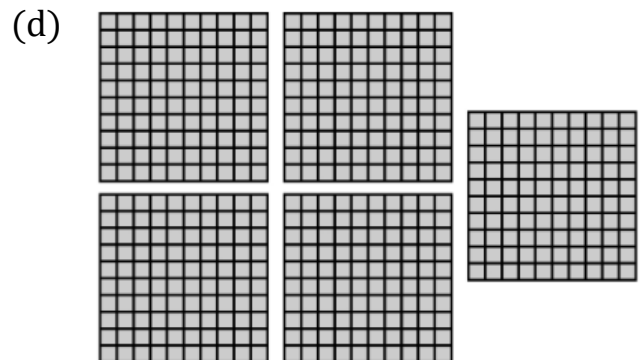
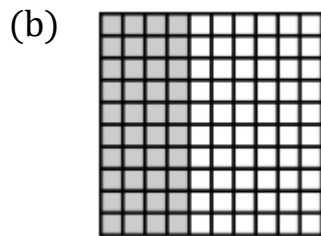
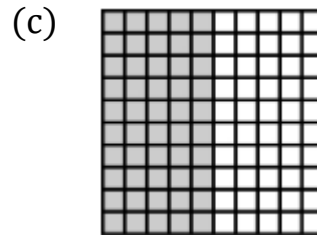
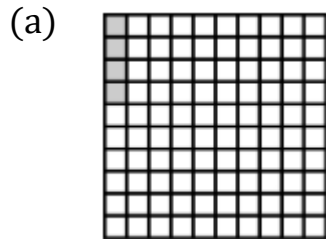
How many more inches of rain actually fell during the past 10 days than Paul guessed had fallen?

- (a) $\frac{1}{4}$ inch (b) $\frac{3}{4}$ inch (c) $1\frac{3}{4}$ inch (d) $3\frac{1}{4}$ inch
35. Three consecutive integers multiply together to give a product of 210. The largest of these integers is which of the following?
- (a) 5 (b) 7 (c) 11 (d) 21

36. The model below is shaded to represent the value of 1.0 or one whole.



Which model is shaded to show the difference between 1.0 and 0.6?

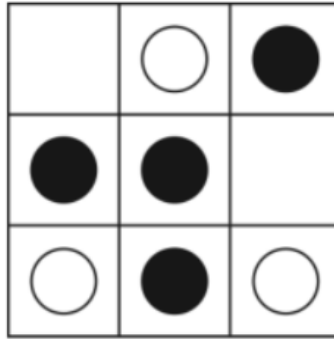


37. Buddy has 6.5 liters of soda to serve at a party. He pours an equal amount of soda into each glass he places on a table. By the time he has filled 3 glasses, he has poured a total of 1200 milliliters of soda. What is the greatest number of additional glasses that Buddy can completely fill with soda?

Conversion Factor
1 liter = 1000 milliliters

- (a) 5 glasses (b) 8 glasses (c) 13 glasses (d) 18 glasses

38. A game board is divided into sections of equal size. Black game pieces and white game pieces are placed on some sections of the game board, as shown below.



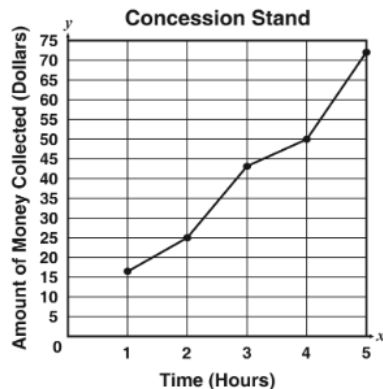
The difference between the number of sections with black game pieces and the number of sections with white game pieces is equivalent to _____.

- (a) $\frac{1}{9}$ of the board (c) $\frac{1}{7}$ of the board
- (b) $\frac{4}{9}$ of the board (d) $\frac{4}{7}$ of the board
39. Five friends – Alex, Brooke, Casey, Dylan and Erin – are in a book club. Each has read a different number of books this month: 2, 5, 7, 8 and 12. Here are the clues to figure out how many books each person has read:
- Brooke read fewer books than Alex but more than Casey
 - Erin read the most books
 - Dylan read 8 books

How many books did Brooke read?

- (a) 2 (b) 5 (c) 7 (d) 8
40. Julian has 4 videos. Each video is the same length. The total time for all the videos is 300 seconds. How many minutes long is each video?
- (a) 0.8 minutes (b) 1.25 minutes (c) 20 minutes (d) 75 minutes

41. The graph below shows how much money was collected at a concession stand at a public pool each hour.



Which set of data was used to create this graph?

(a)

Number of Hours	Amount of Money Collected (\$)
1	10
2	25
3	43
4	50
5	72

(c)

Number of Hours	Amount of Money Collected (\$)
1	16
2	35
3	40
4	50
5	72

(b)

Number of Hours	Amount of Money Collected (\$)
1	16
2	25
3	43
4	60
5	75

(d)

Number of Hours	Amount of Money Collected (\$)
1	16
2	25
3	43
4	50
5	72

42. The first four terms in a pattern are shown below.

$$\frac{3}{4}, \quad 1\frac{1}{4}, \quad 1\frac{3}{4}, \quad 2\frac{1}{4}$$

The pattern continues. What is the tenth term in the pattern?

(a) $5\frac{1}{4}$

(b) $5\frac{3}{4}$

(c) $10\frac{1}{4}$

(d) $10\frac{3}{4}$

43. An inequality is shown below.

$$4.215 < \underline{\hspace{2cm}}$$

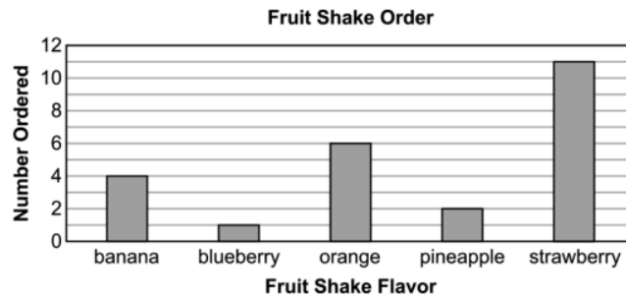
Which number could be placed into the blank to make the inequality true?

- (a) four and twenty-one hundredths
 - (b) four and twenty-seven thousandths
 - (c) four and two hundred five thousandths
 - (d) four and two hundred forty-one thousandths
44. Four friends – Emma, Liam, Mia and Noah – each own a different type of pet: a dog, a cat, a bird and a fish. Here are the clues to figure out who owns which pet:
- Emma is afraid of water, so she doesn't have a fish
 - Liam is allergic to fur, so he doesn't have a cat or a dog
 - Mia loves animals that can fly
 - Noah doesn't own a bird

Who owns the fish?

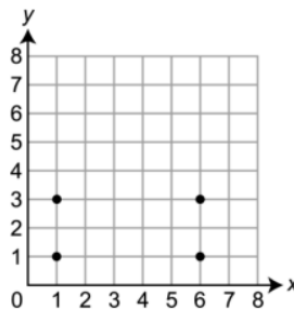
- (a) Emma (b) Liam (c) Mia (d) Noah
45. Jenny stated that the product of $\frac{3}{2}$ and 12 is greater than the product of $\frac{3}{3}$ and 12. Is Jenny correct?
- (a) Yes, because $\frac{2}{3} > 1$
 - (b) No, because $\frac{3}{2} = \frac{3}{3}$
 - (c) Yes, because $\frac{3}{3} = 1$
 - (d) No, because $\frac{3}{3} < \frac{3}{2}$

46. Each of the students in Ms. Steven's class orders a fruit shake. The bar graph below shows the number of fruit shakes of each flavor the students order.



Which two fruit shake flavors are ordered by exactly half of the students in Ms. Steven's class?

- (a) banana and orange (c) blueberry and strawberry
- (b) banana and pineapple (d) orange and strawberry
47. A scientist puts stakes into the ground at the locations of the plotted points shown on the coordinate grid below.



The scientist connects the stakes with string to form a rectangle before digging for objects in the ground. The scientist finds one object inside the rectangle and one object outside the rectangle. At which two locations could the objects have been found?

- (a) (2, 2) and (5, 2)
- (b) (4, 2) and the origin
- (c) (3, 0) and the point with an x-coordinate of 1 and a y-coordinate of 5
- (d) (3, 2) and the point with a y-coordinate of 2 and an x-coordinate of 5

5th Grade Answer Key (2025)

1. A	26. C
2. D	27. C
3. D	28. B
4. B	29. C
5. A	30. D
6. C	31. C
7. D	32. D
8. A	33. D
9. B	34. A
10. A	35. B
11. C	36. B
12. B	37. C
13. B	38. A
14. C	39. B
15. D	40. B
16. D	41. D
17. D	42. A
18. D	43. D
19. C	44. B
20. A	45. D
21. C	46. C
22. A	47. B
23. C	48. C
24. B	49. D
25. A	50. C