

# **Penny Sikes 5<sup>th</sup> and 6<sup>th</sup> Grade Mathematics Tournament**

**Sponsored by Farmers and Merchants Bank**

## **2018 5<sup>th</sup> Grade Individual Test**

**DO NOT OPEN THIS TEST BOOKLET UNTIL  
INSTRUCTED TO DO SO BY THE TEST MONITOR.**

1. Make sure your name, grade and school is correct on your answer sheet.
2. **NO CALCULATORS!**
3. 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.
4. Read each problem carefully and mark each answer on your answer sheet.
5. Be sure to completely fill in the bubble for your answer. If you need to change your answer, make sure to completely erase previous answer.
6. Each correct answer on the test will be counted as one point on your individual score.
7. You will be given one hour to complete the test. You will be notified when the following times are remaining: 30 min, 15 min, 5 min.
8. 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.
9. When the individual test is over, please make sure you take your test and scratch work with you.
10. Pencils will be taken up and more will be provided at each ciphering table.

**GOOD LUCK!**



## 5th Grade Test 2018

Name: \_\_\_\_\_

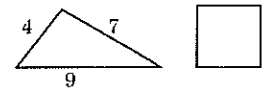
Date: \_\_\_\_\_

1. A plane left Cleveland at 8:10 am and arrived in Tampa at 1:35 pm. How long was the flight?

A. 3 h 25 min      B. 4 h 25 min      C. 5 h 25 min      D. 6 h 25 min

2. If both the square and the triangle shown have the same perimeter, what is the length of each side of the square?

A. 4      B. 5      C. 6      D. 7



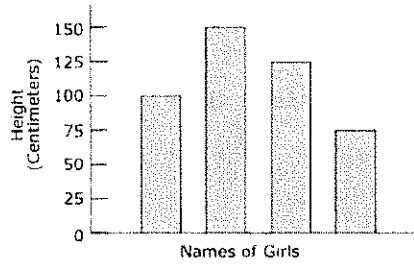
3. David must place markers every 100 meters of the 2-kilometer course for the race through town on the Fourth of July. How many markers will he need?

A. 2      B. 20      C. 50      D. 200

4. The agriculture school garden is rectangular in shape and measures 20 feet by 45 feet. The students plant beans in  $\frac{2}{3}$  of the garden. One-fourth of the beans contains lima beans. How many square feet are left to plant other types of beans ?

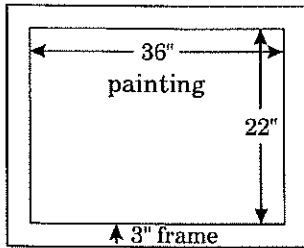
A.  $150 \text{ ft}^2$       B.  $300 \text{ ft}^2$       C.  $375 \text{ ft}^2$       D.  $450 \text{ ft}^2$

5. The graph shows the heights of four girls.



The names are missing from the graph. Debbie is the tallest. Amy is the shortest. Dawn is taller than Sarah. How tall is Sarah?

- A. 75 cm      B. 100 cm      C. 125 cm      D. 150 cm
6. Mrs. Rimm is going to put a wooden frame around a painting, as shown. The painting is 36 inches by 22 inches. The frame will be three inches wide. What will be the area of the frame (excluding the painting) in square inches?



- A.  $58 \text{ in}^2$       B.  $108 \text{ in}^2$       C.  $183 \text{ in}^2$       D.  $384 \text{ in}^2$
7. An island has no currency; instead, it has the following exchange rate.
- 50 bananas = 15 coconuts
- 30 coconuts = 10 fish
- 100 fish = 1 hammock
- How many bananas equal 1 hammock?

- A. 2.5      B. 10      C. 250      D. 1000

8. Look at the expression.

$$s - 4$$

- I. 4 less than some number
- II.  $s$  equals 4
- III.  $s$  minus 4
- IV. some number minus 4

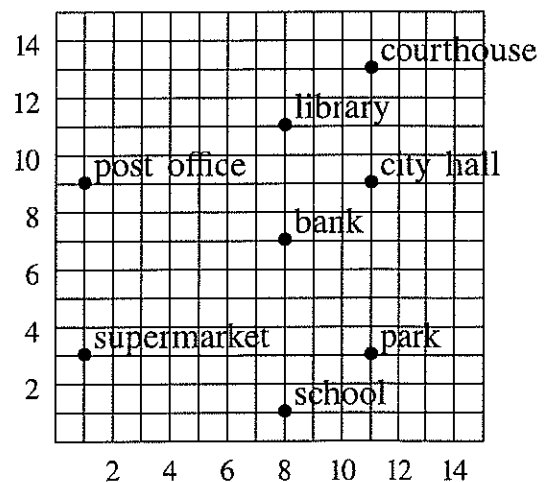
How do you read the expression?

- A. III only
- B. I and III only
- C. III and IV only
- D. I, III and IV only

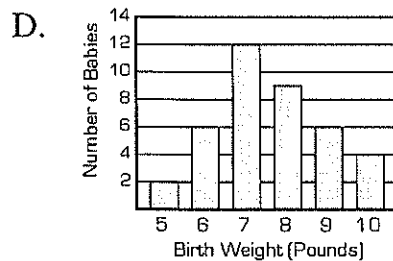
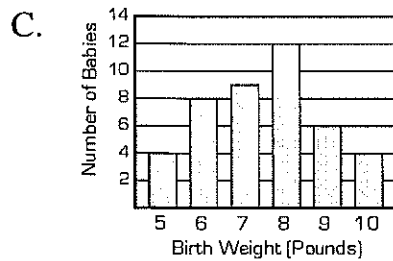
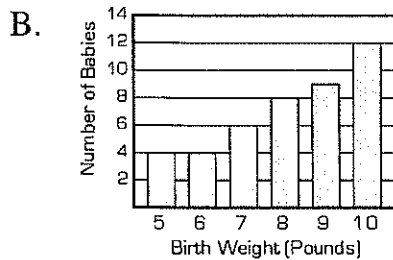
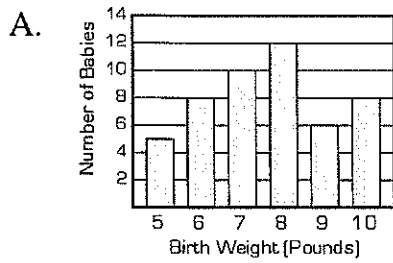
9. Mrs. Maguire walks between the points (8, 7) and (11, 9). What buildings does she walk between?

- A. bank and city hall
- B. city hall and library
- C. bank and courthouse
- D. supermarket and post office

**Map of Stockton**



10. The table shows a frequency tally of the birth weight of forty-two babies. Which bar graph best reflects this data?



Birth Weight	Number of Babies
5 lbs	
6 lbs	
7 lbs	
8 lbs	
9 lbs	
10 lbs	

11. The length of Mr. Tenor's yacht is 17 yd 9 ft 8 in. and the length of Dr. Felmi's yacht is 13 yd 7 ft 11 in.

How much longer is Mr. Tenor's yacht than Dr. Felmi's yacht?

- A. 4 yd 1 ft 7 in.    B. 4 yd 1 ft 9 in.    C. 4 yd 2 ft 3 in.    D. 4 yd 2 ft 9 in.

12. A class of 28 students were surveyed and asked if they had cats or dogs for pets at home.
- 8 students said they only had a dog.
  - 10 students said they had a cat and a dog.
  - 4 students said they did not have a cat or a dog

How many students said they had only a cat?

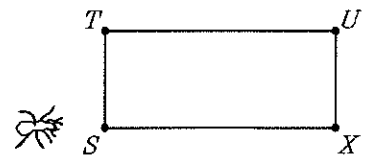
- A. 4                      B. 6                      C. 16                      D. 22

13. Imagine a path shaped just like the one shown. If an ant could start at  $S$  and crawl along the path, which of the following would be the SHORTER trip?

I. From  $S$  to  $T$  to  $U$  to  $X$ .

II. From  $S$  to  $X$  to  $U$  to  $T$ .

- A. I is shorter.  
B. II is shorter.  
C. Both would be the same.  
D. There's no way to tell.



14. John was given the number sentence  $(3 \times 6) + 5 = 23$ . He needs to write a word problem that can be represented by the given number sentence. Which of the following problems could he write?

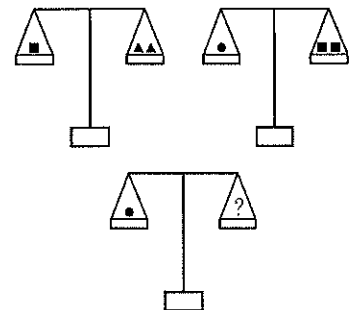
- A. Maura has 6 glasses. Each glass has 3 ounces of water. She pours all the water into a water bottle and then drinks 5 ounces of the water. How many ounces of water are left?
- B. Maura fills 3 baskets with 6 apples in each basket. After filling the baskets, she has 5 apples left over. How many apples did she have in all?
- C. Maura has 3 packets of cookies each. She and her friends eat 5 of the cookies. How many cookies does she have left?
- D. Maura writes 6 pages of her new story. There are 3 paragraphs on each page. She then erases 5 of the paragraphs. How many paragraphs did she have in all?

15. Which of the following statements is true?

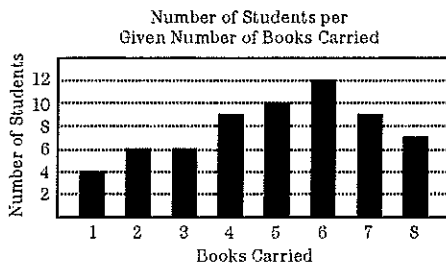
- A.  $23.45 > 32.45$
- B.  $112.5 > 1012.5$
- C.  $5.306 > 5.036$
- D.  $10.83 > 100.83$

16. How many triangles will balance the circle?

- A. 2
- B. 3
- C. 4
- D. 6

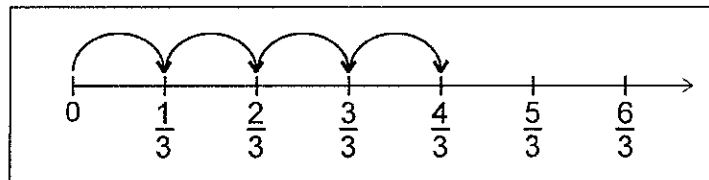


17. A survey was taken of high school students, asking how many books they carried on a certain day. The graph shows the results of the survey.



How many students carried 2 or fewer books?

- A. 4                      B. 6                      C. 8                      D. 10
18. Mrs. Gibney drew a number line on the white board.



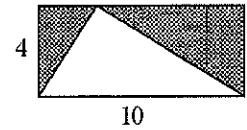
Which of these statements are modeled by the number line?

- I.  $\frac{4}{3} = 4 \times 3$
- II.  $\frac{4}{3} = 4 + \frac{1}{3}$
- III.  $\frac{4}{3} = 4 \times \frac{1}{3}$
- IV.  $\frac{4}{3} = \frac{1}{3} + \frac{1}{3} + \frac{1}{3} + \frac{1}{3}$

- A. I only                      B. IV only
- C. II and III only              D. III and IV only

19. Determine the area of the non-shaded region.

- A. 14      B. 18      C. 20      D. 28



20. Amy and her aunt went to lunch. Amy had \$4.00 to spend.

**Lunch Menu**

Pizza	\$1.00
Hamburger	\$2.00
Hot Dog	\$1.25
Fries	\$0.89
Soda	\$0.50

What could she buy for lunch?

- A. hamburger, fries, pizza, soda      B. fries, soda, hot dog, pizza  
C. hot dog, hamburger, fries, soda      D. pizza, hamburger, hot dog
21. Becky works at a candy store. On display is  $4\frac{2}{5}$  pounds of chocolate fudge,  $2\frac{3}{5}$  pounds of rocky road fudge, and  $3\frac{4}{5}$  pounds of maple walnut fudge. How much more chocolate fudge than maple walnut fudge is on display?

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

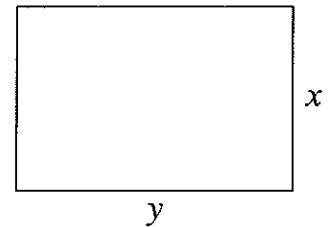
22. At a track meet, the girl's team recorded the following times in the 100 meter dash (in seconds):

Team Member	Time
Mary	5.67
Sue	6.75
Juanita	5.76
Shauna	7.65

How would the times be ordered from greatest to least?

- A. Mary, Juanita, Sue, Shauna                      B. Shauna, Juanita, Sue, Mary  
C. Mary, Juanita, Shauna, Sue                      D. Shauna, Sue, Juanita, Mary
23. Which equation would represent the perimeter,  $P$ , of this rectangle?

- A.  $P = x + y$                       B.  $P = xy$   
C.  $P = 2x + 2y$                       D.  $P = 2xy$

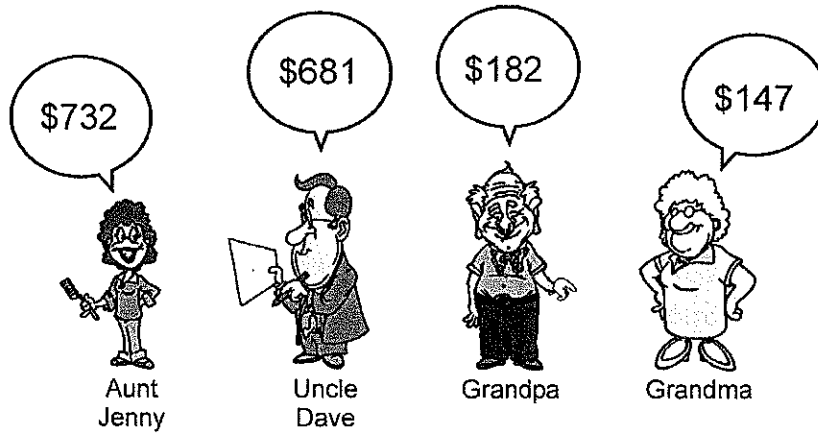


24. Find the quotient and remainder:  $42 \overline{)2611}$

- A. 62 R 7                      B. 68 R 23                      C. 72 R 15                      D. 74 R 18

25. Jimmy wants to go on a leadership trip to Washington D.C. The trip is three days and two nights long. The plane ticket costs \$399.99 round trip, hotel will be \$88 a night, and Jimmy will need about \$52 a day for spending money.

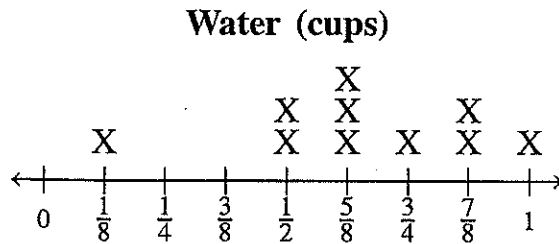
Aunt Jenny, Uncle Dave, Grandpa and Grandma plan to split the cost four ways and give the trip to Jimmy for his birthday. Each person came up with their own estimation of how much they will *each* have to spend.



Who has the most reasonable estimation?

- A. Aunt Jenny      B. Uncle Dave      C. Grandpa      D. Grandma
26. Consider the expressions:
- I.  $5 \div 4 \times 3 - 1$   
II.  $5 \div 4 \times (3 - 1)$   
III.  $5 \div (4 \times 3) - 1$   
IV.  $(5 \div 4) \times 3 - 1$
- Which pair of expressions have the same result when using the standard order of operations?
- A. I and III      B. I and IV      C. II and IV      D. III and IV

27. Ten fifth-graders measured different amounts of water into a pitcher. The amounts of water are shown on the line plot.



What is the total amount of water?

- A.  $5\frac{1}{2}$  cups      B.  $5\frac{3}{4}$  cups      C.  $6\frac{1}{4}$  cups      D.  $6\frac{1}{2}$  cups
28. Nick needs to order 500 pens from his supplier. The catalog shows that these pens come in cases of 24 boxes with 10 pens in each box. Nick knows that he may NOT order partial cases. What is the fewest number of cases he should order?
- A. 2      B. 3      C. 18      D. 21
29. How many digits will be used to number the pages of a 234 page book?
- A. 234      B. 465      C. 594      D. 702
30. Matilda wants to hang a painting that measures  $2' \times 6'$ , another painting that measures  $4' \times 5'$ , and a third painting that measures  $3' \times 2'$  onto a wall. On which wall could she fit all her paintings with exactly 32 square feet of bare wall still showing?

- A. 9'
- B. 7'
- C. 7'
- D. 8'

31. Paige has walked  $\frac{3}{4}$  of the way to her friend's house. Her friend lives  $6\frac{1}{2}$  blocks away from her. Which equation tells you how much farther Paige needs to walk to get to her friends house?

A.  $6\frac{1}{2} \times \frac{3}{4} + \square = 6\frac{1}{2}$

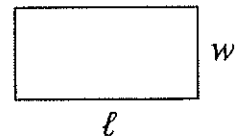
B.  $6\frac{1}{2} \times \square = \frac{3}{4}$

C.  $6\frac{1}{2} \times \frac{3}{4} = \square$

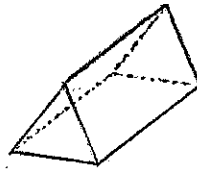
D.  $6\frac{1}{2} - \frac{3}{4} = \square$

32. Find the area of this rectangle if  $\ell = 9.5$  ft and  $w = 3.7$  ft.

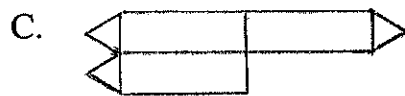
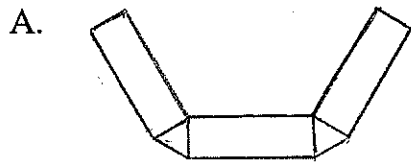
- A.  $35.15 \text{ ft}^2$     B.  $38.2 \text{ ft}^2$     C.  $42.15 \text{ ft}^2$     D.  $56 \text{ ft}^2$



33.



Which of these could be folded to make a shape like the 3-D figure above?



34. Simplify:  $3 \div 1\frac{1}{3}$

A.  $\frac{4}{9}$

B. 4

C.  $1\frac{1}{3}$

D.  $2\frac{1}{4}$

35. Which of the following is the 5-digit number ABCDE such that

$$ABCDE \times 4 = EDCBA?$$

- A. 21657                      B. 21978                      C. 12546                      D. 21376

36. Raynor told his class: "The product of 4 times my age and 45 less than 3 times my age is 0. How old am I?" How old is he?

- A. 10                              B. 8                              C. 12                              D. 15

37. The table shows the makeup test scores for six students.

**Mr. Johnson's  
Grade Book**

Student	Retest
Bill	72
Sam	91
Denise	50
Sandra	83
Cyndi	99
Mark	81

What is the median score?

- A. 79                              B. 81                              C. 82                              D. 83

38. In a ticket line for NBA Finals, on average it takes one minute per person to purchase tickets. Adam is the 8th person from the beginning in line. Within 5 minutes, three more fans join the end of the line and Adam is now the 7th person from the end.

When the last person of the 3 fans join the line, how many people would be in front of this person?

- A. 7                      B. 8                      C. 9                      D. 13

39. The price of a 2.5 kg roast was once \$4.80. This is  $\frac{2}{3}$  of the present cost. What is the present cost?

- A. \$3.20                      B. \$7.20                      C. \$12.00                      D. \$18.00

40. A number of chickens and rabbits are placed in the same cage. Thirty-five heads and ninety-four feet are counted. What is the difference between the number of chickens and the number of rabbits (as a positive number)?

- A. 2                      B. 9                      C. 11                      D. 17

41. Mrs. Bogard bought 1 dozen eggs. She used 2 eggs to make brownies and 2 eggs in an omelet. What fraction of the eggs is left?

- A.  $\frac{4}{12}$                       B.  $\frac{1}{2}$                       C.  $\frac{2}{3}$                       D.  $\frac{3}{4}$

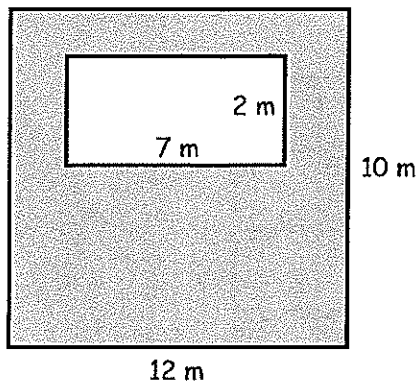
none of these

42. Find the difference:

$$3\frac{1}{3} - 2\frac{4}{5}$$

- A.  $1\frac{17}{15}$                       B.  $1\frac{7}{15}$                       C.  $1\frac{4}{15}$                       D.  $\frac{8}{15}$

43. Find the area of the shaded region.



- A.  $106 \text{ m}^2$       B.  $111 \text{ m}^2$       C.  $120 \text{ m}^2$       D.  $308 \text{ m}^2$

44. From the selections, which is most appropriate for measuring the height of a classroom?

- A. inches      B. feet      C. ounces      D. centimeters

45. A 12-hour clock loses 20 minutes each day. The clock will first return to the correct time in

- A. 12 days      B. 18 days      C. 24 days      D. 36 days

46. Petra delivers uniforms to stores in White Haven. She delivers to Madrigal's every 9 days and to Solartech every 6 days. On Monday the 8th, she will deliver uniforms to both these stores.

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8 Madrigal's Solartech	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

How many days after that will it be before she must deliver to both stores on the same day again?

- A. 3                      B. 18                      C. 54                      D. 56
47. The table below shows the prices for ice-cream cones at an ice-cream store.

**Ice-Cream Prices**

Item	Price (in dollars)
Single-scoop cone	0.75
Double-scoop cone	1.25
Triple-scoop cone	1.75
Extra topping	0.50

Chris orders 3 ice-cream cones: 1 single-scoop cone with an extra topping and 2 double-scoop cones without toppings.

How much change should Chris receive if he gives the clerk \$10.00?

- A. \$3.25                      B. \$3.75                      C. \$6.25                      D. \$6.75

48. A science teacher has 0.4 liter of sea water. She gives each of her 22 students a container and a 5-milliliter spoon. She then asks her students to put two spoonfuls of sea water into their container. How many milliliters of sea water will be left after all 22 students have filled their containers?

- A. 70                      B. 180                      C. 290                      D. 780

49. A rectangular field is 63 yards long and 21 yards wide. A fence is needed for the perimeter of the field. Fencing is also needed to divide the field into 3 square sections. How many total feet of fencing are needed?

- A. 126                      B. 168                      C. 210                      D. 441

50. Simplify:  $\frac{2}{3} + \frac{5}{6} - \frac{1}{9} =$

- A.  $\frac{7}{9}$                       B.  $\frac{1}{2}$                       C.  $1\frac{7}{18}$                       D.  $2\frac{13}{18}$



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

