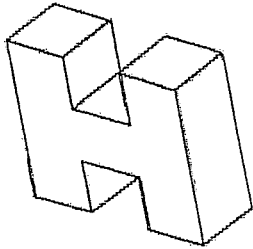


2010 Penny Sikes - Farmers and Merchants Bank
5th and 6th Grade Mathematics Tournament

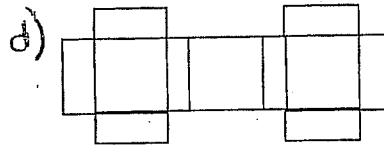
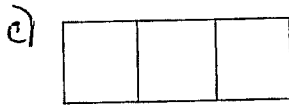
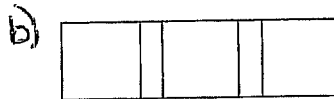
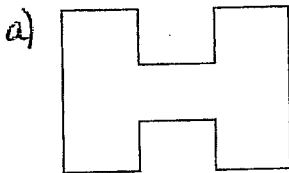
6th Grade Test

1. What is the last step in solving $(4 + 7) - (8 + 2) + 4$?
a) $4 + 7$ b) $8 + 2$ c) $1 + 4$ d) $11 - 10$

2.



Which represents a two - dimensional view from directly above the figure?



3. A swimming pool is being filled at the rate of 12 cubic yards per minute. If the pool is 18 yards long, 10 yards wide, and 3 yards deep, how many minutes will it take to fill the pool?
a) 45 minutes b) 101 minutes c) 540 minutes d) 1233 minutes
4. Abby earned \$20.50 last week. She put 20% in the bank, spent \$5 at the movie, and bought some candy for \$1.37. How much money did she have left?
a) \$5.87 b) \$13.93 c) 0 d) \$10.03
5. Duncan put blue marbles and green marbles in a bag. Exactly $\frac{3}{4}$ of the marbles are blue. Which of the following could be the total number of marbles in the bag?
a) 3 b) 6 c) 7 d) 8
6. If $7x + 3 = 17$, what is the value of $7x - 3$?
a) 14 b) 11 c) 0 d) - 3
7. If two containers of soda cost \$3.98, how much would 5 containers cost?
a) \$9.95 b) \$19.90 c) \$0.40 d) \$1.59

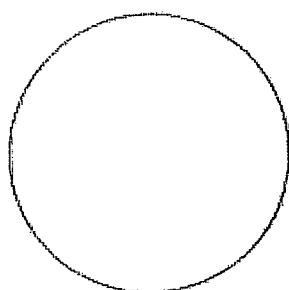
13. The volume of a cube is 126 ft.^3 . What would be the volume of a pyramid with the same base and height?
 a) 126 ft.^3 b) 252 ft.^3 c) 378 ft.^3 d) 42 ft.^3
14. The table below shows Patrick's results on a 25 - question history test.

Results of Patrick's History Test

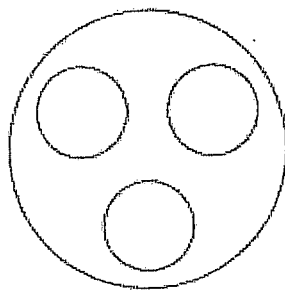
	Multiple-Choice Questions	True-False Questions
Number of Questions Answered Correctly	14	6
Number of Questions Answered Incorrectly	1	4

Of the questions Patrick answered correctly, what percent were the true - false questions?

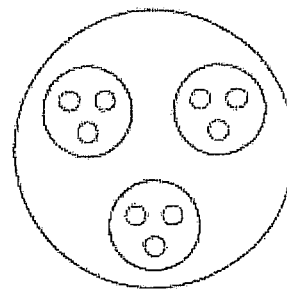
- a) 30% b) 40% c) 42% d) 67%
15. An artist creates a design by drawing circles in steps, as shown below.



Step 1



Step 2



Step 3

The table below shows a pattern of the total number of circles formed at each step.

Pattern of Circles

Step	1	2	3	4	5
Total Number of Circles	1	4	13		

If the pattern shown in the table continues, what will be the total number of circles formed at step 5?

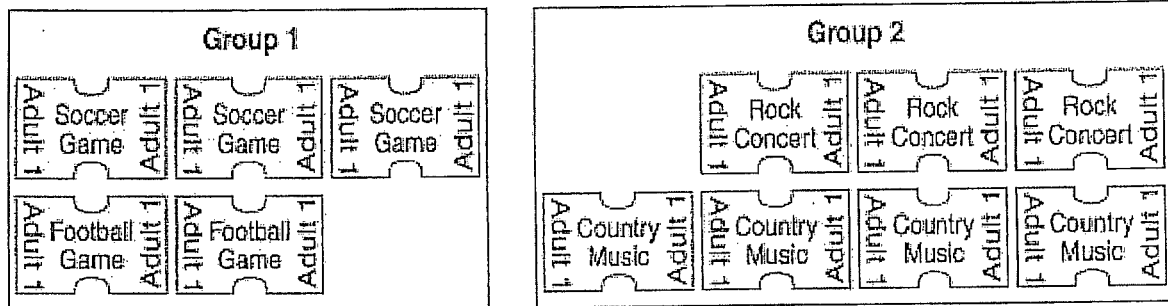
- a) 52 b) 117 c) 121 d) 283
16. If 4 quarters are tossed, how many possible outcomes are there?
 a) 8 b) 16 c) 2 d) 4

23. At the circus, the audience ate 1000 hotdogs. Each hotdog costs \$1.99. Which of the following can be found from this information?
- How many people bought hotdogs?
 - How much did the buns cost?
 - How many hotdogs did Mr. Watts eat?
 - How much money was spent on hotdogs?

24. Karen cleaned 36 houses last month. Karen cleaned 7 more houses than her sister Judy. Let y represent Judy. What equation would be used to find the number of houses that Judy cleaned?

- $\frac{36}{7y}$
- $7y = 36$
- $y + 7 = 36$
- $y - 7 = 36$

25. Donny must select one ticket at random from each group of tickets shown below. What is the probability that he will select a football ticket and a country music ticket?



- $\frac{1}{2}$
- $\frac{1}{35}$
- $\frac{8}{21}$
- $\frac{8}{35}$

26. Kelly's three-point shoot average is 40%. How many shots should she shoot if she wants to make 12 three-point shots?

- 4.8
- 14.4
- 24
- 30

27. A large blue blanket measures 12 ft. by 8 ft. A small blue blanket measures 5 ft. by 3 ft. What is the difference in the areas of the two blankets?

- 81 ft.²
- 111 ft.²
- 98 ft.²
- 15 ft.²

28. If $a = 5$, $b = 3$, and $c = 2$, what does $\frac{a+b}{c}$ equal?

- 2
- 4
- 10
- 30

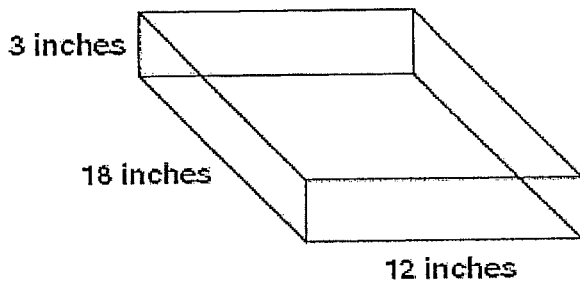
29. If $m = 3$ and $n = 2$, what is the value of $7m - mn$?

- 8
- 9
- 15
- 21

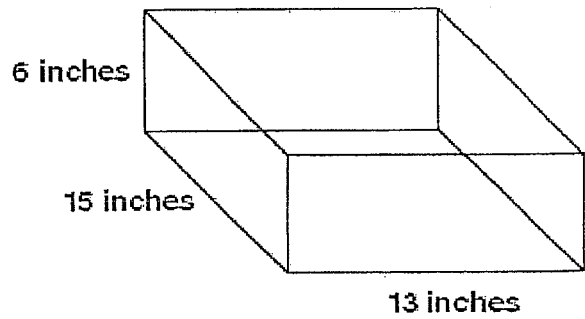
30. A tile floor is 15 ft. by 10 ft. Each tile is 2 ft. by 1 ft. How many tiles are in the tile floor?

- a) 300 b) 30 c) 20 d) 75

31. Toby works in a print shop. He needs to fit as many rubber stamps into a box as possible. Each rubber stamp is a 1-inch cube.



Box A

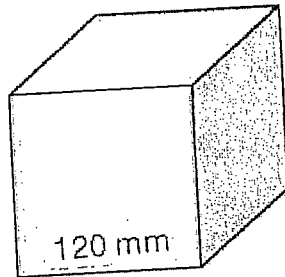


Box B

How many more rubber stamps can Toby fit into Box B than into Box A?

- a) 500 b) 522 c) 648 d) 1170

32. Look at the cube below. If $1000\text{mm}^3 = 1\text{cm}^3$, what is the volume of the cube in cm^3 ?



- a) 17.28 cm^3 b) 1728 cm^3 c) $172,800\text{ cm}^3$ d) $1,728,000\text{ cm}^3$

33. A movie production company wants to determine the types of movies that Georgia students like to watch. Which is the best survey method?

- a) a survey of every student at a local school
b) a survey of students at a local movie theater
c) a survey of students at different shopping malls
d) a survey of student randomly generated from a computerized list

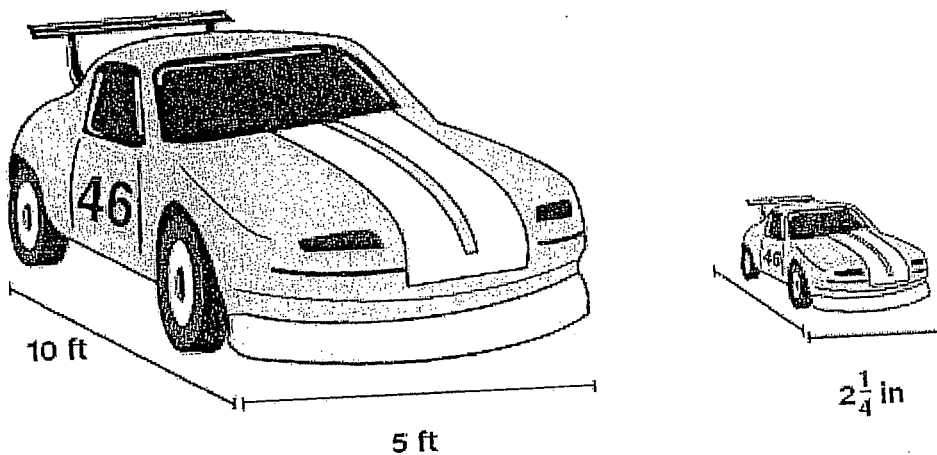
34. A tired bug decided to catch a ride on the edge of a bicycle tire. The tire rotated $4\frac{1}{4}$ times before the bug decided to hop off and walk again. The bicycle tire had a diameter of 16 inches. How far did the bug travel?

- a) 50.24 in. b) 213.52 in. c) 68 in. d) 200.96 in.

35. What is the probability of rolling a die and getting a number less than 4?

- a) $\frac{1}{6}$ b) $\frac{2}{3}$ c) $\frac{1}{2}$ d) $\frac{1}{3}$

36. A race car is 5 feet wide and 10 feet long. The scale model of the race car is $2\frac{1}{4}$ inches wide. How long should the scale model of the race car be?



- a) 20 inches b) 15 inches c) $7\frac{1}{4}$ inches d) $4\frac{1}{2}$ inches

37. Danielle has \$35 to spend on birthday presents for 2 of her friends. She has already spent a total of \$6 on the cards. If she wants to spend the same amount on each friend, how much can she spend on each present?

- a) \$29.00 b) \$23.00 c) \$17.50 d) \$14.50

38. A jar contains 16 straws. All 16 straws are striped. What is the probability of drawing a straw that is not striped?

- a) 1 b) $\frac{13}{16}$ c) 0 d) $\frac{1}{16}$

39. Dillon rents a car for \$50 a day for 6 days. He will pay \$0.25 a mile for each mile he drives. Which expression shows how he will determine how much he will owe after 6 days?

- a) $(\$50 + \$0.25) 6$ b) $(\$50 \cdot 6) + (\$0.25m)$
c) $(\$50 \times 0.25) 6$ d) $\$50 + \$0.25 + 6$

40. Today there are 320 adults at the tournament. Of these adults, 210 are parents of 5th graders and 130 are parents of 6th graders. If 50 are parents of students in both 5th and 6th grade, how many adults are not parents of participants?

- a) 20 b) 30 c) 90 d) 50

41. Which answer makes the following equation true?

$$27 - 6 \times 3 + \underline{\hspace{2cm}} = 25$$

- a) 3^2 b) 4^2 c) 5^2 d) 6^2

42. Omar has $\frac{1}{4}$ of a pizza. He wants to eat $\frac{2}{3}$ of this amount. How much of the pizza will Omar eat?

- a) $\frac{1}{6}$ b) $\frac{3}{8}$ c) $\frac{3}{7}$ d) $\frac{5}{8}$

43. A store sells markers in packs of 14 and pencils in packs of 5. Blaine wants to buy an equal number of markers and pencils. What is the minimum number of markers Blaine would have to buy?

- a) 28 b) 42 c) 70 d) 140

44. Walt plans to wash cars this summer for his summer job. He purchased all of his materials for \$150. For each vehicle he washes, he will charge \$8. What is the fewest number of vehicles he must wash to make a profit?

- a) 142 b) 18 c) 1200 d) 19

45. For every 3 books Paige sells, she earns \$25. How much money will Paige earn if she sells 11 books?

- a) \$6.81 b) \$91.67 c) \$125.37 d) \$275.00

46. Beth made 50 bookshelves. Tomorrow, she will make 110% of this number. How many bookshelves will Beth make tomorrow?

- a) 55 b) 60 c) 105 d) 160

47. Sally and Jen have a lemonade stand in their front yard. You may buy 3 cups for \$5.85, 6 cups for \$11.70, and 9 cups for \$17.55. What is the most likely cost for 15 cups?

- a) \$23.40 b) \$30.00 c) \$29.25 d) \$19.50

48. A city middle school has an enrollment of 2500 students. On any given day, 3% of the students are absent. How many students are attending school on a given day?

- a) 75 b) 2425 c) 750 d) 7.5

49. If $2x + 5 = 25$, and $3y - 6 = y + 4$, then $xy = ?$

- a) 10 b) 5 c) 15 d) 50

50. If a porcelain doll can be made in $2\frac{1}{2}$ hours, how many dolls can be made in 100 hours?

- a) 40 b) $102\frac{1}{2}$ c) $50\frac{1}{2}$ d) 250

2010 Penny Sikes – Farmers and Merchants Bank
5th and 6th Grade Mathematics Tournament

6th Grade Key to Written Test

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