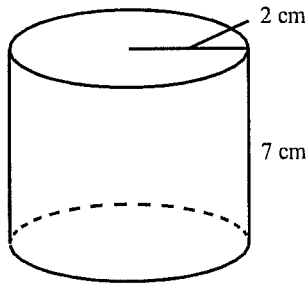


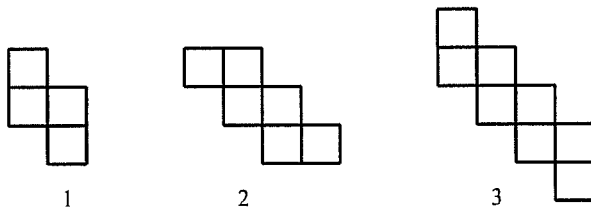
5th Grade Written Test 2011

1. Find the volume of the cylinder. Use $\pi \approx 3.14$.



- [A] 307.7 cu cm [B] 87.9 cu cm [C] 28 cu cm [D] 98 cu cm

2. If the pattern below is continued, what will be the number of squares in the 8th figure of this pattern?



- [A] 48 [B] 15 [C] 18 [D] 64

3. Use the table. It shows the year-to-date accumulated mileage record of four runners.

	March 1	March 2	March 3	March 4	March 5
Eleanor	160	165	170	175	180
Calvin	134	137	145	150	153
Josephine	125	126	128	131	135
Howard	112	113	115	116	118

Which describes Howard's running pattern?

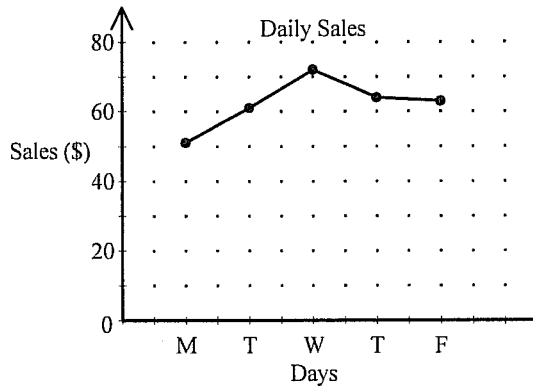
- [A] Howard ran 5 miles each day. [B] Howard ran in no particular pattern.
 [C] Howard ran 1 mile and 2 miles on alternating days.
 [D] Howard ran 1 mile more each day than the day before.
4. Twin primes are successive prime numbers that differ by 2. How many pairs of twin primes are there between 2 and 45?

- [A] 8 [B] 6 [C] 5 [D] 7

5. You have four kinds of sandwich meat and three types of bread. How many different sandwiches can you possibly make?

- [A] 24 [B] 7 [C] 12 [D] 16

6. The broken-line graph shows sales proceeds from the school bake sale over 5 days.



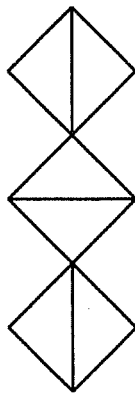
Approximately how much higher were the highest sales than the lowest sales?

- [A] \$72.00 [B] \$21.00 [C] \$51.00 [D] \$2.10

7. What is the greatest number of pieces you can cut a pizza into using only three straight cuts if the pieces do not need to all be the same size?

- [A] 4 pieces [B] 6 pieces [C] 5 pieces [D] 7 pieces

8. You want to make patches using triangles. Determine the amount of material you will need for the patch below, using the diagram to find the area of the patch. The area of each triangle is 8 square units.



- [A] 40 square units [B] not enough information
 [C] 32 square units [D] 48 square units

9. Write an equation from the following statement, and then solve the equation.
When a number is decreased by 21, the result is 37.

- [A] $x - 37 = 21$ [B] $x - 21 = 37$ [C] $x + 21 = 37$ [D] $x + 37 = 21$
 $x = 58$ $x = 58$ $x = 16$ $x = 16$

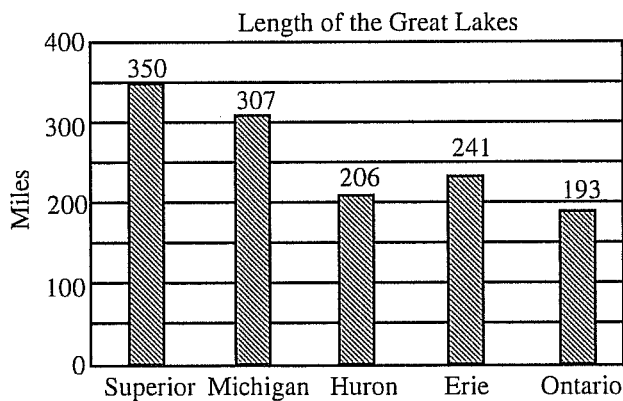
10. When her family had a rummage sale, Darla sold soda pop. When only one-half of the soda pop was left, she put 20 more cans in the cooler. After that Darla sold 35 cans. At the end of the day, 7 cans of soda pop were left. How many cans were in the cooler at the beginning of the sale?

- [A] 79 cans [B] 14 cans [C] 22 cans [D] 44 cans

11. Before any taxes were added, a new car had a sticker price of \$40,682.00. This included the base price, plus \$3867.00 worth of options and \$590.00 for the dealer to prepare the car. What was the base price of the car?

- [A] \$36,225.00 [B] \$4457.00 [C] \$37,405.00 [D] \$45,139.00

12. Use the bar graph. It shows the length in miles of the Great Lakes.

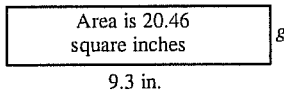


How many miles shorter is Lake Huron than Lake Superior?

- [A] 101 mi [B] 114 mi [C] 109 mi [D] 144 mi

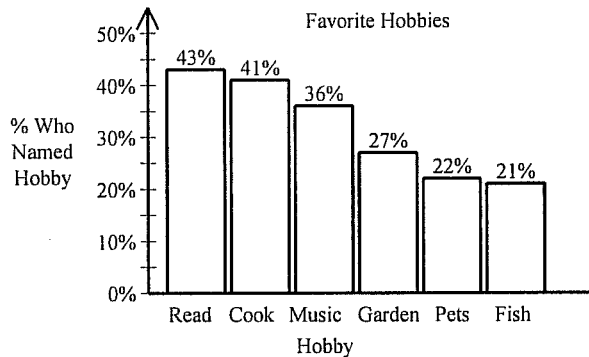
18. Write 0.06 as a percent. [A] 0.0006% [B] 0.06% [C] 6% [D] $\frac{6}{100}\%$
19. Write $\frac{49}{50}$ as a decimal and as a percent.
[A] 0.98, 0.98% [B] 0.98, 9.8% [C] 9.8, 98% [D] 0.98; 98%
20. Which shows order of decimals from least to greatest?
[A] 7.05, 5.07, 0.57, 5.71, 1.75 [B] 0.57, 1.75, 5.07, 7.05, 5.71
[C] 0.57, 1.75, 5.07, 5.71, 7.05 [D] 1.75, 7.05, 5.07, 0.57, 5.71
21. Round each decimal to the given decimal place. 2.0526 (thousandths)
[A] 2.05 [B] 2.053 [C] 2.052 [D] 2.1
22. The chances of the Rams defeating the Giants next week are 3 out of 5. What are the chances that the Giants will beat the Rams? (Write your answer as a percent.)
[A] 67% [B] 60% [C] 40% [D] 63%
23. Mr. Bien earns 6% commission on every piece of furniture he sells. If he sells a chair for \$200, how much will Mr. Bien earn in commission?
[A] \$6 [B] \$20 [C] \$206 [D] \$12
24. In the 1980 Olympics, the winning time for the women's 400 meter run was 48.88 seconds. The time of the winning man was 44.6 seconds. How much faster was the man's time?
[A] 93.48 sec. [B] 4.28 sec. [C] 4.18 sec. [D] 9.348 sec.
25. Find the product. 4.5×6.89 [A] 30.005 [B] 28.45 [C] 31.005 [D] 310.05
26. Kevin bought 33 candies for \$15.18. What was the price for each candy?
[A] \$0.50 [B] \$0.46 [C] \$0.56 [D] \$0.42

27. What is the indicated measurement? $g = ?$



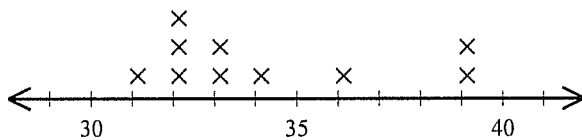
- [A] 2.2 in. [B] 11.16 in. [C] 1.86 in. [D] 190.278 in.

28. In a survey, 200 people were asked to name one to three favorite hobbies. The 6 most popular are shown in the bar graph below. Find the number of people who named music as their favorite.



- [A] 144 named music [B] 36 named music
 [C] 172 named music [D] 72 named music

29. The line plot below represents the ages of the first ten people in line at the movie theater. Find the correct data.



- [A] 31, 35, 34, 33, 38, 36, 34, 37, 32, 32 [B] 29, 24, 27, 28, 21, 26, 28, 21, 27, 28
 [C] 31, 36, 33, 32, 38, 35, 31, 38, 32, 31 [D] 31, 36, 33, 32, 39, 34, 32, 39, 33, 32

30. What is the mean? 124, 124, 119, 125, 130, 122

- [A] 119 [B] 122 [C] 124 [D] 123

31. Catherine bowled 2 games, scoring 211 and 225. What must she bowl in the third game in order to have a 215 average for these 3 games?

- [A] 208 [B] 209 [C] 217 [D] It is impossible to average 215 for these 3 games.

32. What is the mode in the following data? [A] 60 [B] 24 [C] 20 [D] 17
13, 20, 27, 20, 17, 16, 3, 8, 20, 6

33. Which fractions are equivalent to the given fraction? $\frac{1}{3}$

[A] $\frac{4}{12}, \frac{2}{6}, \frac{3}{9}$ [B] $\frac{2}{6}, \frac{3}{9}, \frac{9}{12}$ [C] $\frac{3}{12}, \frac{3}{6}, \frac{3}{9}$ [D] $\frac{3}{12}, \frac{4}{12}, \frac{3}{9}$

34. Which fraction would make the statement $\frac{3}{5} < \bigcirc$ true?

[A] $\frac{1}{2}$ [B] $\frac{3}{4}$ [C] $\frac{1}{3}$ [D] $\frac{2}{5}$

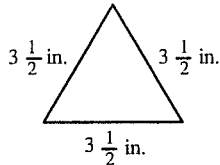
35. Use the following information. A survey of 20 zoo visitors named their favorite exhibit. Two-fifths chose lions and tigers, three-tenths chose monkeys, one-fourth chose bears and the rest were undecided. How many of those surveyed chose lions and tigers as their favorite exhibit?

[A] 8 [B] 10 [C] 2 [D] 5

36. Write $\frac{35}{8}$ as a mixed number. [A] $1\frac{8}{27}$ [B] $35\frac{1}{8}$ [C] $4\frac{3}{8}$ [D] $\frac{3}{8}$

37. Convert 9 yards to inches. [A] 27 in. [B] 108 in. [C] 324 in. [D] 111 in.

38. Find the value of x . Perimeter = x



[A] $10\frac{1}{2}$ in. [B] 10 in. [C] $9\frac{1}{2}$ in. [D] 12 in.

39. Subtract: $\frac{3}{4} - \frac{1}{10}$ [A] $\frac{1}{20}$ [B] $\frac{13}{20}$ [C] $\frac{17}{20}$ [D] $\frac{3}{40}$

40. Widget Industries had stock that sold at $66\frac{5}{8}$. After a takeover bid, the stock rose $3\frac{3}{4}$ points. What was the new price?

- [A] $71\frac{3}{8}$ points [B] $63\frac{1}{8}$ points [C] $69\frac{1}{8}$ points [D] $70\frac{3}{8}$ points

41. Subtract: $3\frac{2}{3} - 1\frac{4}{5}$ [A] $2\frac{2}{5}$ [B] $1\frac{13}{15}$ [C] $1\frac{4}{15}$ [D] $2\frac{2}{15}$

Find the product. Simplify, if necessary.

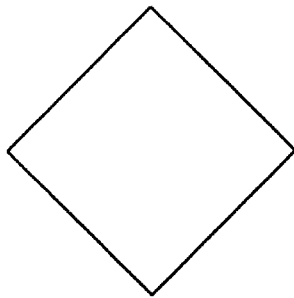
42. $\frac{4}{5} \times \frac{3}{4}$ [A] $\frac{3}{5}$ [B] $\frac{15}{16}$ [C] $\frac{5}{3}$ [D] $\frac{16}{15}$

43. $2\frac{2}{3} \times \frac{1}{4}$ [A] $\frac{3}{4}$ [B] 2 [C] $\frac{1}{4}$ [D] $\frac{2}{3}$

44. Tobais is planting an herb garden in the shape of a right triangle that is 9 feet wide and 9 feet long. What is the area of Tobais' herb garden?

- [A] 81 square feet [B] 18 square feet [C] 13.5 square feet [D] 40.5 square feet

45. Draw the lines of symmetry for the figure below.



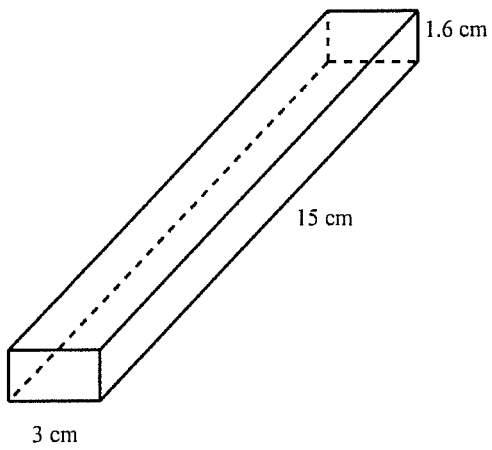
How many lines of symmetry does it have?

- [A] 2 [B] 8 [C] none [D] 4

46. A park has a circular swimming pool. The diameter of the pool is 21 ft. What is the distance traveled if you swim around the edge of the pool once? Use $\pi = 3.14$.

- [A] 65.94 ft [B] 42 ft [C] 131.95 ft [D] 197.92 ft

49. Find the volume of the rectangular prism.



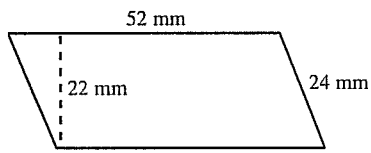
[A] 78.4 cm^3

[B] 69 cm^3

[C] 73.8 cm^3

[D] 72 cm^3

50. Find the area of the figure.



[A] 1248 sq mm

[B] 27,456 sq mm

[C] 1144 sq mm

[D] 196 sq mm

- [1] B
- [2] C
- [3] C
- [4] B
- [5] C
- [6] B
- [7] D
- [8] D
- [9] B
- [10] D
- [11] A
- [12] D
- [13] D
- [14] B
- [15] A
- [16] B
- [17] D
- [18] C
- [19] D
- [20] C
- [21] B
- [22] C
- [23] D
- [24] B

- [25] C
- [26] B
- [27] A
- [28] D
- [29] D
- [30] C
- [31] B
- [32] C
- [33] A
- [34] B
- [35] A
- [36] C
- [37] C
- [38] A
- [39] B
- [40] D
- [41] B
- [42] A
- [43] D
- [44] D
- [45] D
- [46] A
- [47] A
- [48] C

- [49] D
- [50] C