

Online Math League
2009 – 2010 Fourth Grade Contest #2

Student Name _____ Date _____

Rules: You have 30 minutes to complete this test. You must work independently, and calculators and other reference tools are not permitted. Each question has exactly one right answer. Do your best!

1. Sarah is making three cheesecakes for her family reunion. Each cheesecake requires three-fourths of a cup of sugar. How much sugar does Sarah need to make all three cheesecakes?

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

2. Sarah is making more cheesecakes for a large party. Each cheesecake requires three fourths of a cup of sugar, one and a half teaspoons of vanilla, and 16 ounces of sour cream. She has three and a quarter cups of sugar, 5 teaspoons of vanilla, and 44 ounces of sour cream. How many cheesecakes can Sarah make before she runs out of an ingredient?

- A. 1 B. 2 C. 3 D. 4 E. 5

3. What number comes next in the following pattern?

2, 3, 5, 9, 17, _____

- A. 25 B. 27 C. 30 D. 33 E. 38

4. Joe and Jim are playing marbles. Joe has 36 marbles and Jim has 42 marbles. Ron wants to play marbles, too, but he doesn't have any marbles. If they want to split all the marbles evenly between the three boys, how many marbles does each boy get?

- A. 26 B. 25 C. 21 D. 18 E. 13

5. Jason rode his bike from his home to the house of his friend, Greg, who lives five miles away. It took Jason 20 minutes to get to Greg's house. How long did it take Jason to ride each mile?

- A. 2 minutes B. 3 minutes C. 4 minutes
D. 5 minutes E. 6 minutes

6. A certain square has an area of 121 square inches. How many inches is each side of the square?

- A. 8 B. 9 C. 10 D. 11 E. 12

7. Mr. Smith opened a box of 500 staples on January 15th. If he uses 30 staples each day beginning on the day he opened the box, on what day will he run out of staples?

- A. January 30th B. January 31st C. February 1st
D. February 2nd E. February 3rd

8. David ran around a track four times. He ran his first lap in 1 minute, 35 seconds. Each lap he ran was 15 seconds slower than the lap before it. How long did it take him to run the fourth lap?

- A. 2 minutes, 20 seconds B. 2 minutes, 15 seconds C. 2 minutes, 10 seconds
 D. 2 minutes, 5 seconds E. 2 minutes, 0 seconds

	Ferris Wheel	Scrambler	Bumper Cars
Friday	284	212	131
Saturday	376	327	212
Sunday	332	289	197

The chart above shows how many people rode each specific ride on a weekend at the local fair. Use the chart to answer questions #9 and #10.

9. More people rode the Ferris Wheel over all three days than the Bumper Cars. How many more?

- A. 649 B. 583 C. 120 D. 425 E. 452

10. Which of the following statements is true?

- A. More total people rode the Scrambler than the Ferris Wheel
 B. More total people rode the Bumper Cars than the Scrambler
 C. More total people rode the Ferris Wheel than the Scrambler
 D. More total people rode the Bumper Cars on Sunday than on Saturday
 E. More total people rode the Scrambler on Sunday than on Saturday

11. Mike bought a sucker for 25¢, a book for \$3.99, and a baseball for \$2.99. He paid for all of this with a \$10 bill. How much change should he get back?

- A. \$3.20 B. \$3.02 C. \$2.75 D. \$2.77 E. \$2.79

12. What number belongs in the box in the following equation?

$$\square + 84 = 23 \times 6$$

- A. 44 B. 54 C. 56 D. 64 E. 42

13. Maria bought eight toys for \$64. Each toy cost the same amount. How much would six of the toys cost?

- A. \$48 B. \$42 C. \$54 D. \$46 E. \$68

14. If the digits in the tens place and the ones place of the number 1,425 were reversed, how much larger would the new number be?

- A. 27 B. 23 C. 32 D. 33 E. 21

15. Bob bought a dozen donuts for 52¢ each. He also received a 13th donut free. What was the average cost of each donut?

- A. 46¢ B. 48¢ C. 50¢ D. 54¢ E. 56¢

**Online Math League
Answer Key, 2009-2010 Fourth Grade Contest #2**

1. **B** (The first question on every Online Math League test involves a topic the students should be comfortable with, as we want to begin each test on a positive note.)
2. **B** (There is enough sugar to make four cheesecakes. There is enough vanilla to make three cheesecakes. However, there is only enough sour cream to make two cheesecakes.)
3. **D** (The terms increase by one, two, four, eight, and finally, sixteen.)
4. **A**
5. **C**
6. **D** (The area of a square is equal to the length of a side squared (or multiplied by itself). In this problem, 11 inches squared equals 121 square inches.)
7. **B** (Using 30 staples per day, the staples will run out on the 17th day ($30 \times 17 = 510$). Starting on January 15th, the 17th day is January 31st.)
8. **A**
9. **E** (The number of people who rode the Ferris Wheel = $284 + 376 + 332 = 992$. The number of people who rode the Bumper Cars = $131 + 212 + 197 = 540$. The difference is $992 - 540 = 452$.)
10. **C**
11. **D**
12. **B**
13. **A** ($\$64$ divided by eight toys = $\$8$ per toy. $\$8$ per toy multiplied by 6 toys = $\$48$.)
14. **A**
15. **B** (12 donuts multiplied by 52¢ each = $\$6.24$ paid in total. $\$6.24$ divided by 13 total donuts received = 48¢ average cost per donut)