"Math is Cool" Masters – 2005-06

Sponsored by:

4th Grade – May 20, 2006

Individual Contest

GENERAL INSTRUCTIONS

Good sportsmanship is expected throughout the competition by all involved. Bad sportsmanship may result in disqualification. Calculators or any other aids may not be used on any portion of this contest. On all tests, except multiple choice, express all rational, non-integer answers as reduced common fractions unless stated otherwise or it is a problem dealing with money and in that case, a decimal answer should be given. For fifth and sixth grade, all fractions and ratios must be reduced. Units are not necessary unless it is a problem that deals with time and, in that case, am or pm is needed. However, if you choose to use units, they must be correct. Leave all answers in terms of π where applicable. Do not round any answers unless stated otherwise. ***Record all answers on the colored cover sheets in the answer column only. Make sure all answer sheets have all the information filled out at the top of the sheet. Tests will be scored as a 0 if answers are not recorded correctly on the answer sheets. Blank answer sheets and answer sheets with no name will also be scored as a 0.***

INDIVIDUAL TEST - *35 minutes*

When you are prompted to begin, tear off the colored sheet and begin testing. Make sure your name and school are recorded on the answer sheet. Each problem is scored as a 1 or 0. Record your answers on the score sheet. No talking during the test. You will be given a 5 minute warning.

Record all answers on the colored cover sheet.

1	Find the sum of 831 and 786.
2	If one clown can hold 4 balloons, how many clowns does it take to hold 32 balloons?
3	Find the product of 78 and 27.
4	Find the quotient of 221 and 13.
5	Evaluate: 5(3 + 5) - 6
6	In 1997 Don was 29 years old. On the same day in 2007, how many years old is Don?
7	Diesel costs $3.29 a gallon. How much, in dollars, will it cost to fill a diesel tank that holds 33 gallons? [Express answer as a decimal.]
8	Sally bought 12 "Math is Cool" t-shirts for $144. How much did each t-shirt cost, in dollars? [Express answer as a decimal.]
9	Marcy went to the pet store and bought a rabbit and a goldfish, she spent $24.00. The rabbit cost twice as much as the goldfish, how much, in dollars, did she pay for the rabbit? [Express answer as a decimal.]

10	It takes the sound of thunder five seconds to travel a mile. How far away, in miles, is the thunder if it takes the sound 55 seconds to reach you?
11	Write the following mixed number as a reduced fraction: $3\frac{5}{8}$
12	Write the following reduced fraction as a mixed number: 11/4
13	Compare the following pairs of numbers using <, = or >. 5/6 ☐ 7/8
14	Joe wants to buy the largest number of pieces of candy as possible. One type of candy sells for 18¢ for 5 pieces and another type sells for 13¢ for 4 pieces. What is the largest number of pieces of candy he can buy for 77¢ if the candy must be bought in those increments?
15	On the first day Eho walked for 3 hours 32 minutes. On the second day he walked for 6 hours 55 minutes and on the last day he walked for 2 hours and 48 minutes. How many total hours did he walk? [Express answer as a mixed number.]
16	Joe has a garden that was 30 feet by 40 feet. He put a sidewalk around the garden that was 3 feet wide. What is the outside perimeter of the sidewalk, in feet?
17	For every 100 families with TV sets, 12 families like watching sports. In a town of 23,400 families who all have TV sets, how many families would like watching sports?
18	At the end of a board game, Al had $57 of game dollars. During the game he had won $200, lost $150, won $25, lost $10, and lost $35. How much money did Al have at the start, in dollars? [Express answer as a decimal.]
19	If a notebook holds 70 pages, how many pages would eight and one-half notebooks hold?
20	How many lines of symmetry does a square have?
21	Bill spent $34.26 on shoes and $74.26 on a skate board. After his purchases he had $18.26. How much money, in dollars, did he have when he started shopping? [Express answer as a decimal.]
22	A school charges $7.00 for adult tickets and $4.00 for student tickets to a school play. The cost of the production of the play was $800. The drama club made $1140 after the cost of the production was deducted. How many student tickets were sold if 410 tickets were sold in all?
23	Biff and Eho were tossing fair coins. Biff tossed his fair coin 23 times while Eho tossed his fair coin 22 times. What is the probability that Biff gets more heads than

	Eho?
24	A clothing store is selling shirts for $20.00. They decided to raise the price of the shirt by 20%. A few days later they decided to raise the price another 20%. What is the new price of the shirt, in dollars? [Express answer as a decimal.]
25	Annie bought a calculator for $121.17. She paid $125.00. The store was out of dollar bills and all they had was quarters, dimes, nickels and pennies. What is the smallest number of coins she could receive as change?
26	Mara bought some flowers to plant in her garden. When she separated the plants into groups of three, she had one plant left over. When she separated the plants into groups of five, she had one plant left over. When she separated the plants into groups of eight, she had none left over. What is the smallest number of plants that Mara could have bought?
27	Patrick, Tony and Neil live in a row of three houses on the same street. Walking past their houses, they pass a white house first, then a green house, then a blue house. Patrick lives next door to the green house. Tony does not live next door to his friend who lives in the blue house. Who lives in the blue house?
28	Two numbers have a sum of 9 and a product of 20. What is the smallest of these two numbers?
29	A 6-inch diameter pizza costs $8.00 while a 12-inch diameter pizza costs $16.00. Which pizza is the better deal? If you feel the 6-inch diameter pizza is the better deal write down 6 as you answer. If you feel the 12-inch diameter pizza is the best deal write down 12 as your answer. If you feel neither is a better deal (they are the same value), write down neither.

Challenge Questions	
30	Fred and Ed went on a three day hike. Each day they hiked 10 miles. The first day it took them 3 hours of hiking to travel 10 miles. The next day it took 5 hours. If the average rate of speed for the entire trip was 2.5 miles per hour, how many hours did it take them to hike the 10 miles on the third day?
31	How many numbers between 10 and 50 (inclusive) are divisible by 2, 3 or 5?
32	A ball returns to one-half its dropped height. By the time it hits the ground the fourth time, it has traveled up and a down a total of 66 feet. From what height was it dropped, in feet?
33	A bag contains red, green and blue marbles. Joe is told 60% of the marbles are blue and that the bag contains 23 red marbles and 33 green marbles. How many

	blue marbles are in the bag?
34	Write the four letters from smallest to greatest given the following are true: A + B = B + B + B A + A < C D + B < A
35	A 200 acre wheat field averaged 40 bushels per acre. A 150 acre wheat field averaged 60 bushels per acre. What was the overall average, bushels per acre, on the 350 acres? [Express answer as a decimal to the nearest whole number.]
36	Of the 64 proctors volunteering today, all are on the Mt. Spokane Math Team. 36 are taking AP Calculus, 18 are taking AP Biology, 16 are taking AP English, 4 are taking AP Biology and AP Calculus, 7 are taking AP Biology and AP English and 5 are taking AP Calculus and AP English. Seven are not taking any AP courses. How many are taking all three courses AP Biology, AP Calculus and AP English at the same time?
37	Each time the two hands on a certain standard 12-hour clock form a 180° angle, a bell chimes once. From noon today until noon tomorrow, how many chimes will be heard?
38	Let A = the area of a trapezoid with a height of 6 and one base length of 8 and another base length of 5. Let B = the area of a rectangle with diagonal of length 13 and a side length of 5. Find A + B.
39	In a river with a steady current, it takes a frog 20 minutes to swim a certain distance upstream, but it takes her only 10 minutes to swim back. How many minutes would it take a stick to float this same distance downstream?
40	At a grade school, only two students have the same (two letter) initials. What is the largest number of students that could possibly attend this school with different names?

"Math is Cool" Masters – 2005-06

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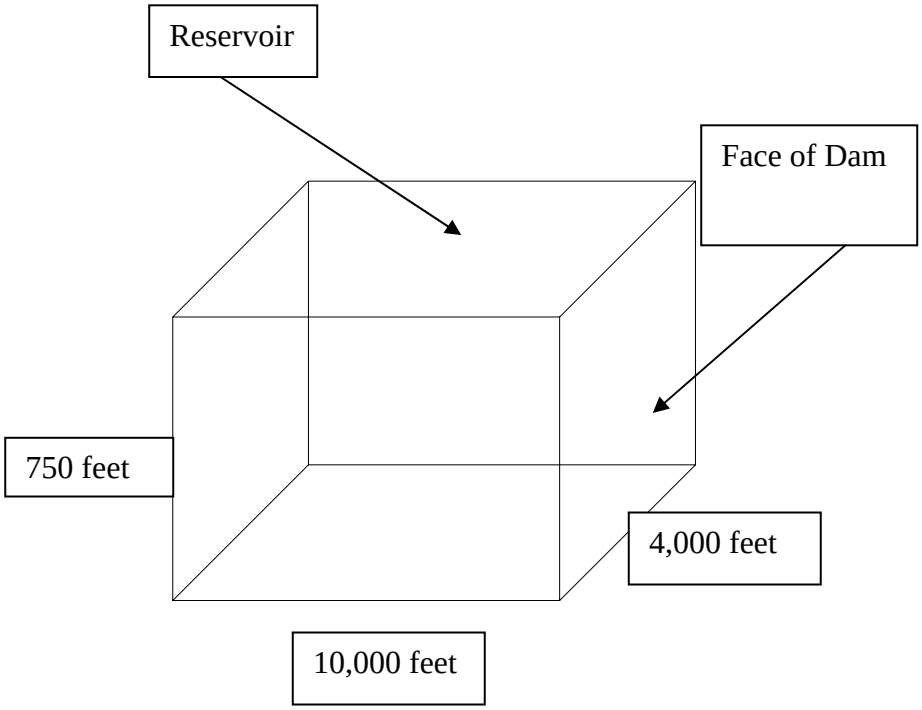
4th Grade – May 20, 2006

Team Multiple Choice Contest

TEAM MULTIPLE CHOICE - 15 minutes

This test is the only test where you will be penalized for incorrect responses. You will receive 2 points for a correct letter response, 0 points for leaving it blank and -1 point for an incorrect response. When you are prompted to begin, tear off the colored sheet, pass out a copy of the test to each team member, and begin testing. Since this is a multiple choice test, ONLY a letter response should be listed as an answer on the answer sheet.

Water flows into the reservoir at 5,000 cubic feet per minute (cfm). When all 20 adjustable spillway gates, gates at the base of the dam that allow water to flow out of the reservoir, are open one foot, a total of 1000 cfm of water is released.



1	How tall, in feet, is the dam? A) 10,000 B) 4,000 C) 750 D) 500 E) Answer not given
2	What is the area of the bottom floor of the reservoir, in square feet? A) 7,500,000 B) 3,000,000 C) 30,000,000,000 D) 100,000,000 E) Answer not given

3	What is the maximum volume of water the reservoir will hold, in cubic feet? A) 100,000,000 B) 7,500,000 C) 3,000,000 D) 30,000,000,000 E) Answer not given
4	A new hydro-electric power plant was added to the dam, consuming 1,000 cfm to produce 10 mega watts of power for the nearby town. During the summer, however, 20 mega watts are needed for the heavy air conditioning use. How many cfm of water must flow through the power plant to accommodate this need? A) 2,000 B) 2,500 C) 2,200 D) 2,400 E) Answer not given
5	What consistent height, in feet, must all the spillway gates be open to keep the reservoir level constant? A) 4.5 B) 5 C) 6 D) 4 E) Answer not given
6	If the reservoir water level is at 700 feet but needs to be raised to 725 feet, how many minutes will it take with all the spillway gates open at 1 foot? A) 250,000 B) 275,000 C) 2,000 D) 30,000 E) Answer not given
7	Divers have realized that only 15 of the 20 spillway gates are operating. What consistent height, in feet, must the 15 gates be open to allow the reservoir to remain at a constant height? A) 6 B) 20/3 C) 7 D) 7.5 E) Answer not given
8	How many minutes would it take a full reservoir to empty if all the gates are open 10 feet? A) 3,000,000 B) 4,500,000 C) 6,000,000 D) 7,500,000 E) Answer not given
9	How many tons of water is in a full reservoir, if 1 cubic foot of water equals 8 gallons, 1 gallon equals 8 pounds, and 2,000 pounds equals 1 ton? A) 900,000,000 B) 960,000,000 C) 860,000,000 D) 800,000,000 E) Answer not given

"Math is Cool" Masters – 2005-06

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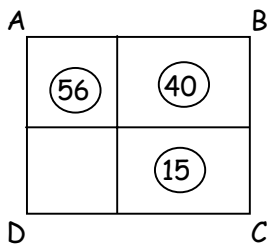
4th Grade – May 20, 2006

Team Contest

TEAM TEST - 15 minutes **(note change in point value!)**

When you are prompted to begin, tear off the colored sheet and give a copy of the test to each of your team members and begin testing. Each problem is scored as a 2 or 0.

1	My favorite math book is the seventeenth book from the left and the fourth book from the right on the bottom shelf of my bookcase. How many books are on the bottom shelf of my bookcase?
2	Tom, along with his mother, father, grandmother, and younger siblings (his brother and his twin sisters), went out to dinner to celebrate his 13th birthday. The females of the family all ordered the $8.99 seafood special, and the males all ordered the $9.99 tofu mixed grill. In addition, the kids each had ice cream at $2.39, while the adults each had coffee at $1.79. In dollars, what was the total bill, ignoring tax?
3	If you add my number to 93, then subtract that sum from 2006, the answer is the product of 18 and 80. What is my number?
4	Rectangle ABCD is divided by straight line segments into 4 regions as in the diagram (not drawn to scale). The areas of 3 of the regions are given. What is the area (in square units) of rectangle ABCD? 
5	The number 8330 (which is written in standard notation) can be written in scientific notation as 8.33×10^3, where 10^3 means $10 \times 10 \times 10$. Write in standard notation the number which is written in scientific notation as 2.4×10^5.
6	Find the value of $(9344 \times 201) - (199 \times 9344)$.
7	In this problem, the symbol # between two numbers means to subtract the sum of the two numbers from the product of the two numbers. As in ordinary arithmetic, do operations inside the parentheses before operations outside the parentheses. Find (9 # 7) # 2.
8	Tina needs two meters of ribbon to make a fancy bow. She has 12 meters of ribbon. How many cuts will it take for her to cut all the ribbon into lengths for making fancy bows?
9	Annette travels 1 kilometer in 2 minutes. Babette travels 2 kilometers in 1 minute. How many minutes longer does it take the slower person to travel 10 kilometers than the faster person?
10	Each of my 4 cards is one color on one side and a different color on the other side in the following combinations: red/green, green/purple, purple/orange, and orange/blue. I lay 3 of the cards out on the table and hide the 4^{th} card. The cards on the table are showing the colors orange, purple, and blue. Name the 2 colors on the card I hid.

"Math is Cool" Masters – 2005-06

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4th Grade – May 20, 2006

Relay Contest

RELAYS - 5 minutes per relay

There is no talking during this event and you must always be facing forward. Person #1 will be given an answer sheet(s) and will need to fill out the top. The proctor will hand out a strip of paper to each person. These need to be face down on your desk until it is time for the relay to start. Once the relay begins, everyone may turn over their strip of paper and begin working. You may write on the strip of paper to come up with your answer. However, when person #1 figures out his/her problem, he/she will record ***just his/her final answer*** *on the answer sheet and pass only the answer sheet back to the person behind. This continues until person #4 puts an answer on the answer sheet and gives it to the proctor. A correct answer from person #1, #2 and #3 is worth 1 point each. A correct answer from person #4 is worth 2 points making each relay worth 5 points. You will see the expression* ***TNYWG*** [Proctor: write this on the board] *which means: "the number you will get". This is where you put your teammate's answer that they pass back to you, and then you should be able to solve your question. Once the relay begins, turn over your strip of paper and* ***make sure you have the right person number.*** *Remember, no talking and remain facing forward to avoid being disqualified!*

	Relay #1	Answer
Person 1	Find the perimeter of an equilateral triangle with side length of 8.	24
Person 2	Evaluate: $\frac{TNYWG + 6}{5} + 3^2 - 5$	10
Person 3	If you live TNYWG miles away from school, how many miles is the round trip?	20 [miles]
Person 4	Find the sum of the factors of TNYWG.	42
	Relay #2	Answer
Person 1	Given a jar of 4 yellow, 3 red and 7 blue marbles, find the probability of drawing a red or yellow marble with one draw.	7/14 or 1/2
Person 2	Evaluate: TNYWG + TNYWG	1
Person 3	Evaluate: TNYWG x (4 + 5 + 6 + 7 - 10)	12
Person 4	Evaluate: TNYWG ÷ 3!	2

"Math is Cool" Masters – 2005-06

Sponsored by:

4th Grade – May 20, 2006

Final Score:
KEY

School Name_____Team #_____

Proctor Name_____Room #_____ Division: ____

Mental Math Contest

When it is time to begin, I will read the first question twice. You may not do any writing or talking while arriving at a solution. Once you have a solution, record it on the sheet in front of you. ***You may not change or cross out answers once you have written an answer down. If there are eraser marks, write-overs, or crossed out answers, they will be marked wrong.*** *Once all students have laid their pencils on the desk, another question will be asked. If a student doesn't lay his/her pencil down, the maximum wait time is 30 seconds from the second reading of the question before another question is asked. You may continue to work on a problem while the next question is being read. The value of each question is a one or zero. Each student may answer only four questions, and then another member of your team will come up, until each team member has had a turn. If your team has fewer than 4 members, missing team members will receive a zero.*

PERSON 1 NAME:		**1 or 0**
1.1	Find the sum of twenty-one and twenty-two.	43
1.2	What is the greatest common factor of 24 and 30?	6
1.3	What is 4 factorial?	24
1.4	What is the sum, in degrees, of the exterior angles of a regular hexagon?	360 [°]
PERSON 2 NAME:		
2.1	What is the product of twenty and two?	40
2.2	What quadrant is the point 8 comma 2 located?	1st
2.3	What is the least common multiple of 12 and 16?	48
2.4	How many times is the digit 2 used in the numbers 1 through 20, including 1 and 20?	3 [times]
PERSON 3 NAME:		
3.1	How many positive numbers less than forty are divisible by seven?	5
3.2	What day of the week will it be twenty days from next Saturday?	Friday
3.3	What is the area of a trapezoid whose height is 8 and bases have a sum of 12?	48
3.4	What is the smallest integer greater than the square root of 110?	11
PERSON 4 NAME:		
4.1	How many perfect squares are between 10 and 103?	7
4.2	What is the sum of the absolute value of negative 7 and 5 factorial?	127
4.3	Find the result after 20 is divided by 1/2 and 10 is added to the quotient.	50
4.4	Find the hypotenuse of a right triangle if the two legs are 5 and 12?	13

"Math is Cool" Masters – 2005-06

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4th Grade – May 20, 2006

Division 1 & 2

COLLEGE KNOWLEDGE BOWL ROUND #1

#	Problem	Answer
1	A string of length 12 is cut into 3 pieces of equal length. What is the sum of the lengths of the three pieces?	12
2	I have 17 cents. If I double the number of pennies I have, I would have 29 cents. How many pennies do I have?	12 [pennies]
3	If I roll a regular 6-sided die two times, what is the probability I will roll the same number?	1/6
4	What is the difference between the number that is 23 more than 49, and the number 17?	55
5	The Hochstatter family went out to dinner. Each of the two parents' meal cost $10. Each of the three teenagers' meal cost $12 and, finally, Grace's meal cost $15. What was the total cost, in dollars, of the meals for the Hochstatter family?	[$] 71
6	A certain tree trunk splits into three large branches. Each large branch splits into four small branches. Each small branch splits into five twigs. What is the total number of twigs on this tree?	60 [twigs]
7	Spongebob Squarepants wants to power his house with electric eels. Spongebob needs 117 watts of electricity. Each eel produces 3 watts of electricity. How many eels does Spongebob need?	39 [eels]
	Extra Problem – Only if Needed	
8	How many diagonals can be drawn in a regular quadrilateral?	2 [diagonals]

"Math is Cool" Masters – 2005-06

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4th Grade – May 20, 2006

Division 1 & 2

COLLEGE KNOWLEDGE BOWL ROUND #2

#	Problem	Answer
1	Triscia was supposed to meet Annie at 2:13 PM. If Annie arrived 20 minutes early, then Annie arrived at what time?	1:53 PM
2	On a class test, everyone took the test and everyone got a different grade. Ali's grade was both the 10^{th} highest and the 10^{th} lowest grade in the class. How many students were in the class?	19 [students]
3	In how many different ways can the letters in the word CLOCK be arranged?	60 [ways]
4	What is the sum of the digits of the number representing the year 10 years from now?	9
5	The average of two numbers is 8 and their product is 55. What is the larger of the two numbers?	11
6	The year "1988" contains two equal digits. Of the years from 1988 through 2006, how many have three equal digits?	2
7	The perimeter of a regular hexagon is 54. What is the length of each side?	9
	Extra Problem – Only if Needed	
8	Evaluate: Three cubed minus the product of the first two prime numbers.	21

"Math is Cool" Masters – 2005-06

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4th Grade – May 20, 2006

Division 1 & 2

COLLEGE KNOWLEDGE BOWL ROUND #3

#	Problem	Answer
1	Grace read all pages in a chapter of a book, starting with page 20 and finishing with page 40. How many pages did Grace read?	21 [pages]
2	David paints twice as fast as Caleb. If it took Caleb 6 hours to paint a room, how long, in minutes, would it have taken if both had painted the room together?	120 [min]
3	If today were Monday, the day after tomorrow would be what day?	Wednesday
4	Evaluate: 1 + 11 + 111 + 1111	1234
5	Find the product of the number of interior angles in a triangle and the number of sides in an octagon.	24
6	Each time Tom's phone rings, it rings for 3 seconds, then it's silent for 2 seconds before the next ring. If Tom's phone rings 5 times, how many seconds does it take from the beginning of the first ring until the end of the final ring?	23 [sec]
7	A line and a circle are drawn on a piece of paper so that the line passes through the center of the circle. How many times does the line intersect the circle?	2 [times]
	Extra Problem – Only if Needed	
8	What is one thousand nine hundred ninety rounded to the nearest hundred?	2000

"Math is Cool" Masters – 2005-06

4th Grade – May 20, 2006

Final Score:
KEY

First Score

School Name_____Team #_____

Proctor Name_____Room #_____

STUDENT NAME_____Division: _____

Individual Contest – Score Sheet

DO NOT WRITE IN SHADED REGIONS

	Answer	1 or 0	1 or 0
1	1617		
2	8 [clowns]		
3	2106		
4	17		
5	34		
6	39 [yrs]		
7	[$] 108.57		
8	[$] 12		
9	[$] 16.00		
10	11 [miles]		
11	29/8		
12	2 3/4		
13	<		
14	22 [pieces]		
15	13 1/4 [hrs]		
16	164 [ft]		
17	2808 [fam]		
18	[$] 27		
19	595 [pgs]		
20	4 [lines]		

	Answer	1 or 0	1 or 0
21	[$] 126.78		
22	310 [tickets]		
23	1/2		
24	[$] 28.80		
25	19 [coins]		
26	16 [plants]		
27	Patrick		
28	4		
29	12		
30	4 [hours]		
31	29 [num]		
32	24 [ft]		
33	84 [blue mar]		
34	D, B, A, C Order matters		
35	49 [bus/acre]		
36	3 [stu]		
37	22 [chimes]		
38	99		
39	40 [mins]		
40	677 [students]		

"Math is Cool" Masters – 2005-06

4th Grade – May 20, 2006

Final Score:
KEY

First Score
(out of 18)

School Name_____Team #_____

Proctor Name_____Room #_____

Division: _____

Team Multiple Choice Contest – Score Sheet

Correct responses are worth 2 points, incorrect responses are worth -1 point and no response is 0 points.

DO NOT WRITE IN SHADED REGIONS

	Answer	-1, 0 or 2	-1, 0 or 2
1	C		
2	E (40,000,000)		
3	D		
4	A		
5	B		
6	A		
7	B		
8	C		
9	B		

"Math is Cool" Masters – 2005-06

4th Grade – May 20, 2006

Final Score:
KEY

First Score

(out of 20)

School Name_____Team #_____

Proctor Name_____Room #_____

Div: _____

Team Contest – Score Sheet

DO NOT WRITE IN SHADED REGIONS

	Answer	2 or 0	2 or 0
1	20 [books]		
2	[$] 80.86		
3	473		
4	132 [sq units or un^2]		
5	240,000		
6	18,688		
7	45		
8	5 [cuts]		
9	15 [minutes]		
10	red/green		

"Math is Cool" Masters -- 2005-06

KEY

4th Grade – May 20, 2006

School:_____Team #_____

Proctor: _____ Room #_____Div _____

RELAY # 1

Answer for person # 1	Answer for person # 2	Answer for person # 3	Answer for person # 4
24	**10**	**20 [miles]**	**42**
1 or 0	1 or 0	1 or 0	2 or 0

RELAY # 2

Answer for person # 1	Answer for person # 2	Answer for person # 3	Answer for person # 4
7/14 [or $\frac{1}{2}$]	**1**	**12**	**2**
1 or 0	1 or 0	1 or 0	2 or 0

"Math is Cool" Masters – 2005-06

4th Grade – May 20, 2006

Final Score:

First Score

School Name_____Team #_____

Proctor Name_____Room #_____

STUDENT NAME_____Division: _____

Individual Contest – Score Sheet

DO NOT WRITE IN SHADED REGIONS

	Answer	1 or 0	1 or 0
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

	Answer	1 or 0	1 or 0
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
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32			
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39			
40			

"Math is Cool" Masters – 2005-06

4th Grade – May 20, 2006

School Name_____Team #_____

Proctor Name_____Room #_____

Division: _____

Final Score:

First Score (out of 18)

Team Multiple Choice Contest – Score Sheet

Correct responses are worth 2 points, incorrect responses are worth -1 point and no response is 0 points.

DO NOT WRITE IN SHADED REGIONS

	Answer	-1, 0 or 2	-1, 0 or 2
1			
2			
3			
4			
5			
6			
7			
8			
9			

"Math is Cool" Masters – 2005-06

4th Grade – May 20, 2006

Final Score:

School Name_____Team #_____

First Score
(out of 20)

Proctor Name_____Room #_____

Div: _____

Team Contest – Score Sheet

DO NOT WRITE IN SHADED REGIONS

	Answer	2 or 0	2 or 0
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

"Math is Cool" Masters – 2005-06

Sponsored by:

4th Grade – May 20, 2006

Final Score:
(Out of 16)

School Name_____Team #_____

Proctor Name_____Room #_____ Division: ____

When it is time to begin, I will read the first question twice. You may not do any writing or talking while arriving at a solution. Once you have a solution, record it on the sheet in front of you. ***You may not erase or cross out answers once you have written an answer down.*** *If there are eraser marks or crossed out answers, they will be marked wrong. Once all students have laid their pencils on the desk, another question will be asked. If a student doesn't lay his/her pencil down, the maximum wait time is 30 seconds from the second reading of the question before another question is asked. The value of each question is a one or zero. Each student will be asked four questions, then another member of your team will come up.*

PERSON 1 NAME:		**1 or 0**
1.1		
1.2		
1.3		
1.4		
PERSON 2 NAME:		
2.1		
2.2		
2.3		
2.4		
PERSON 3 NAME:		
3.1		
3.2		
3.3		
3.4		
PERSON 4 NAME:		
4.1		
4.2		
4.3		
4.4		

Relay Answers

4th Grade

Mental Math

4th Grade

College Bowls

4th Grade

Division 1 & 2