

# "Math is Cool" Masters - 2004-05

Sponsored by: American Chemical Society

6th Grade - May 14, 2005

Individual Contest

Written by Cherie Clymer

## GENERAL INSTRUCTIONS

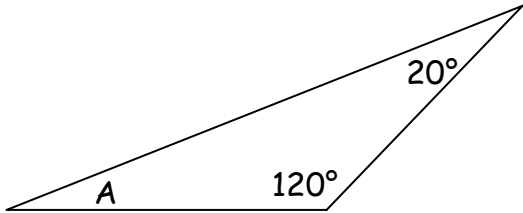
*Good sportsmanship is expected throughout the competition by all involved. Bad sportsmanship may result in disqualification. Calculators may not be used on any portion of this contest. Express all non-integer answers as fractions unless stated otherwise or it is a problem dealing with money and in that 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 B 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. This test is scored as a 1 or 0. Express all non-integer answers as fractions unless stated otherwise or it is a problem dealing with money and in that case, a decimal answer should be given. For fifth & sixth grade, make sure all fractions and ratios are reduced. Units are not needed except on questions that deal with time and, in that case, a.m. or p.m. is needed. If you choose to use units, you must use them correctly. Record your answers on the score sheet. No talking during the test.*

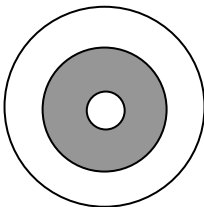
Record all answers on the colored cover sheet.

1	Evaluate: $4 + 12 \div 4$
2	Evaluate: $(4 + 12 \div 4)^2$
3	A semi-circle has a diameter of 12. What is its area?
4	What is the mean of $\frac{3}{5}$ and $\frac{4}{7}$ ?
5	The sum of three consecutive numbers is 27. What is the smallest of the three numbers?
6	Express $\frac{1+2+3+4+5}{2+4+6+8+10}$ as a common reduced fraction.
7	How many numbers between 1 and 100 inclusive are divisible by 2 or 3 but not 6?

8	What is the sum of the digits of the number you find after you round 38,129,450 to the nearest 10,000?
9	A recipe calls for 3 tablespoons of sugar for every $\frac{1}{2}$ cup of flour. If Samantha has 14 tablespoons of sugar, how many cups of flour does she need to make the recipe? Write your answer as a mixed number.
10	What is the difference in the number of diagonals in a convex decagon and a convex pentagon?
11	What's the smallest palindrome larger than 1001?
12	On the first day that I began cross-country skiing, I went 1 km. If I double the distance I ski each day, on which day did I first ski over 20 km in a single day?
13	Biff and Eho decided to go backpacking in the Cabinet mountains in Montana, 210 miles away. 60 miles away from home, Eho realized he forgot his backpack, so they went back. How many miles did they travel, total, to get to the Cabinet mountains?
14	What is the area of a right triangle with legs of lengths 3 and 4?
15	Three couples go to a movie and sit together in a row. How many different ways can they sit so that each couple stays together?
16	How many degrees are in the complement of a 55 degree angle?
17	Order from smallest to largest: $\left(\frac{1}{2}, -\frac{2}{5}, \frac{1}{3}, -\frac{1}{4}, 0\right)$
18	Two counting numbers differ by 13. If they are both greater than 56, what is the smallest possible value of their sum?
19	In the figure shown, what is the measure, in degrees, of angle A? 
20	What integer is closest to $-142/6$ on the number line?
21	If two months ago was April, what month will it be 21 months from now?
22	An item that originally cost \$100.00 was discounted by 30%, but then the discounted price was raised by 30%. What is the new price of the item, in dollars?
23	Two six-sided dice are tossed. What is the probability that the sum of the numbers rolled is not divisible by 2 or 3?
24	The length and width of a rectangular prism are tripled, but the height remains the same. By what factor is the volume increased?
25	What is the sum of the next two terms in the following sequence? 1, 8, 27, 64,...
26	The mean average of three numbers is 3. If two of the three numbers are 1, what is the other number?

27	A rectangular playing field is 40 yards wide and 30 yards long. How far is it diagonally across this field, in yards?
28	What is the sum of all integers that make the following inequality true? $ x  < 3$
29	The ratio of two supplementary angles is 5:7. What is the measure of the larger angle, in degrees?

## Challenge Questions

30	1580 <sub>10</sub> is 2145 in what base?
31	What is the first number that is divisible by 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10?
32	What percent of 50 divided by $\frac{1}{2}$ is 50 times $\frac{1}{2}$ ?
33	Mathland Middle School's math team members all participate in at least one of three other school activities: band, leadership, and track. Of the 40 members of the team, 15 are in leadership, 23 are on the track team, 4 are in both leadership and band, 6 are in both leadership and track, 3 are in band and track, and 2 students are in all three activities. How many students are in the band, total?
34	The entrance to a railroad tunnel in the Cascade mountains is in the shape of a semi-circle. Seven feet from the center of the tunnel, the height of the entrance is 24 feet. How tall is the tunnel at its center, in feet?
35	Tom, Cherie, and Jack are running a race. They are the only people running in the race. The probability of Tom winning is $\frac{1}{2}$ , the probability of Cherie winning is $\frac{1}{3}$ , and the probability of Jack winning is $\frac{1}{6}$ . The night before the race, Tom broke his foot and dropped out of the race. With Tom gone, what is the probability of Jack winning?
36	Dart players are aiming at the bulls eye as shown below. Given that all the dart players will hit the target with a dart, what is the probability their dart will hit the shaded area? The radius of the large circle is 5; the radius of the medium circle is 3, and the radius of the small circle is 1.
	
37	What is the volume of a cone, in cubic inches, with a height of 1 foot and a radius of $\frac{1}{4}$ foot?
38	What is the lateral surface area, in square inches, of a cylinder whose radius measures $2\frac{1}{2}$ inches and whose height is 5 inches?
39	Spiderman, Garfield, and Shrek all enter a race as a relay team. Spiderman swings through the first mile in 3 minutes and 40 seconds. Garfield crawls the second mile in 116 minutes, and Shrek jumps the last mile in 20 seconds. What was their team's average speed, in miles per hour? [Write answer as a decimal.]
40	The hands of an analog clock overlap each other at 12 o'clock. After the minute hand turns 960 degrees, what is the measure of the smaller angle between the hour hand and the minute hand?

# "Math is Cool" Masters - 2004-05

Sponsored by: American Chemical Society

6th Grade - May 14, 2005

Team Multiple Choice Contest - Written by Amanda Hochstatter

**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.*

Below are the statistics from a gymnastics meet held in the fall. A gymnast is judged on each event (vault, bars, beam and floor) with the highest possible score on an event being 10. All-around scores for each gymnast are determined by the sum of the four events.

Team results for each team are determined by the sum of the top three individual scores from a team in each event.

## Individuals from Apple Valley Gymnastics

Gymnast	Vault	Bars	Beam	Floor	All - Around
Lynette	8.5	8.6	9.2	?	35.4
Holly	9.3	?	8.8	9.2	36.2
Amanda	8.9	8.8	?	8.8	?
Blake	9.25	?	8.2	?	34.95
Kristy	9.0	9.1	8.5	8.3	?

## Team Results

Team	Vault	Bars	Beam	Floor	Team Score
Apple Valley	?	?	26.6	?	?
Gym Academy	27	25.8	27.075	26.3	?
Mathtastics	25.7	26.8	27.3	26.5	?

<b>1</b>	<p>Morgan, who didn't compete at the above meet, is trying to get an all-around score of 36.5 or above. If she gets the same score on the four events, what is the lowest score she can get on vault and still reach her goal?</p> <p>A) 8.725    B) 9.125    C) 9.25    D) 9.275    E) Answer not given</p>
----------	--

2	What did Lynette score on floor? A) 9.1      B) 8.95      C) 8.5      D) 8.1      E) Answer not given
3	What is the highest possible team score? A) 108      B) 110      C) 115      D) 125      E) Answer not given
4	Blake scored the same on bars and floor. What was her score on bars? A) 8.725      B) 8.7375      C) 8.2      D) 8.75      E) Answer not given
5	Kristy fell on beam which is a 0.5 point deduction from her final beam score. What would have been her all around score had she not fallen? A) 9.0      B) 8.0      C) 35.4      D) 34.4      E) Answer not given
6	Who contributed to the team bar score for Apple Valley Gymnastics? A) Kristy, Amanda, Lynette      B) Kristy, Amanda, Holly C) Kristy, Lynette, Holly      D) Kristy, Blake, Amanda      E) Answer not given
7	Kristy and Blake love to have a good time and will do most anything for ice-cream. Coach Jeff makes a deal with them. If they get a 9.0 on beam before state, they can have an ice-cream party. Based on the statistics from the above meet, what is the sum of how much each girl must improve her score to meet the minimum goal of 9.0 on beam? A) 1.15      B) 1.3      C) 0.8      D) 0.5      E) Answer not given
8	What is the sum of the mean, median and mode of Amanda's four event scores rounded to the nearest tenth? A) 17.4      B) 26.4      C) 17.6      D) 26.1      E) Answer not given
9	What team placed first and what was the first place team score? A) Apple Valley, 107.6      B) Mathtastics, 106.3      C) Apple Valley, 106.175 D) Apple Valley, 106.35      E) Answer not given

Individuals from Apple Valley Gymnastics

Gymnast	Vault	Bars	Beam	Floor	All -Around
Lynette	8.5	8.6	9.2	?	35.4
Holly	9.3	?	8.8	9.2	36.2
Amanda	8.9	8.8	?	8.8	?
Blake	9.25	?	8.2	?	34.95
Kristy	9.0	9.1	8.5	8.3	?

Team Results

Team	Vault	Bars	Beam	Floor	Team Score
Apple Valley	?	?	26.6	?	?
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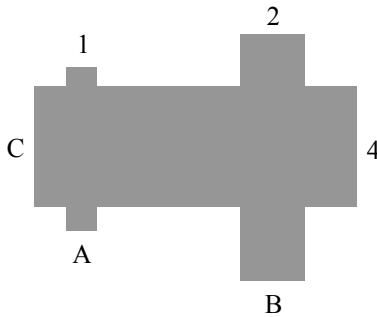
6th Grade - May 14, 2005

Team Contest

Written by Linda Moore

## TEAM TEST - 15 minutes

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. This test is scored as a 1 or 0. Express all non-integer answers as fractions unless stated otherwise or it is a problem dealing with money and in that case, a decimal answer should be given. For fifth & sixth grade, make sure all fractions and ratios are reduced. Units are not needed except on questions that deal with time and, in that case, a.m. or p.m. is needed. If you choose to use units, you must use them correctly.

1	<p>Three rectangles intersect at right angles as shown. If rectangle A is 1 by 7 cm, rectangle B is 2 by 10 cm, and rectangle C is 11 by 4 cm, what is the total shaded area, in square centimeters?</p>	 <p>The diagram shows three overlapping rectangles. Rectangle A is a small vertical rectangle on the left. Rectangle B is a larger vertical rectangle on the right. Rectangle C is a horizontal rectangle that overlaps with both A and B. The overlapping regions of A and B, A and C, and B and C are shaded. The dimensions are labeled: A has width 1 and height 7; B has width 2 and height 10; C has width 11 and height 4.</p>
2	<p>What is the total surface area of the shape formed when a cube with three-centimeter edges has a cube with one-centimeter edges carved into the center of each of its faces?</p>	
3	<p>If I take out one M&amp;M at random, the probability that I will get either a red or a green M&amp;M from my bag of 120 M&amp;Ms is <math>\frac{3}{10}</math>. If I eat all the red ones, the probability that the next M&amp;M I take out will be green is <math>\frac{1}{8}</math>. How many red M&amp;Ms were in the bag originally?</p>	
4	<p>Joel takes \$100 out of his savings account. The bank gives him his cash in \$1, \$2, and \$5 bills. He gets at least one \$2 bill. The value of all his \$1 bills is six times the value of all his \$2 bills. How many \$5 bills does he get?</p>	
5	<p>The sum <math>\frac{1}{a} + \frac{1}{b}</math> is less than 1, where a and b are natural numbers. The sum <math>\frac{1}{a} + \frac{1}{b}</math> is more than 5 times the product <math>\frac{1}{a} \times \frac{1}{b}</math>. What is the smallest possible sum of a and b?</p>	
6	<p>Find the smallest possible product you could get by multiplying any two numbers in the set <math>\{-3, 1, \frac{1}{2}, -1, 4, \frac{1}{4}\}</math>.</p>	
7	<p>The least common multiple of 4, 3, and n is 60, where n is a whole number. How</p>	

	many different values could n have?
8	Students will work in teams of 3 to sell souvenir math posters at the "Math is Cool" Championships. If the contest lasts 3 hours, and Josh, Kristina, Colin, Jack, and Rebecca each work an equal amount of time, how many minutes will Josh need to work?
9	Randy is numbering a set of lockers with stick-on digits. He has already numbered lockers 1 through 25 when he stops to count his remaining stickers and finds that he has 21 more stickers each for the digits 1, 2, 3, 4, and 5, but only 11 each of 6, 7, 8, 9, and 0. What is the largest locker number Randy can make if he numbers the lockers in order?
10	When the following are put in order from smallest to largest, what will be the letter of the third item on the list? (A) $0.25 + 0.25 + 0.25$ (B) $25(0.25)$ (C) $0.25 \times 0.25 \times 0.25$ (D) $0.25 \div 0.25 \div 0.25$ (E) $25!$



# "Math is Cool" Masters - 2004-05

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6th Grade - May 14, 2005

## 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!*

	<b>Relay #1</b>	Answer
Person 1	What is the sum of the number of faces (sides), edges and corners of a cube?	26
Person 2	Divide TNYWG by two, then square the result?	169
Person 3	What is the largest prime number smaller than one-half of TNYWG?	83
Person 4	What is the remainder when TNYWG is divided by 11?	7
	<b>Relay #2</b>	Answer
Person 1	If $x$ is 3, evaluate the following: $2x^2 - 4x + 7$	13
Person 2	Add 3 to TNYWG, then double it.	32
Person 3	Add 4 to TNYWG and then take the square root.	6
Person 4	How many ways can I choose a 2-person team out of TNYWG players?	15

# "Math is Cool" Masters - 2004-05

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6th Grade - May 14, 2005

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 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	What is the greatest common factor of 81 and 54?	27
1.2	What is the height in inches of a right rectangular prism whose base is 4 inches by 2 inches and whose volume is 64 cubic inches?	8 [in]
1.3	Colin is thinking of a number. Four times the number equals three times the number plus five. What is the number?	5
1.4	Cherie's old necklace had nineteen pearls. Her new necklace has five more than twice the number of pearls her old necklace had. How many pearls does her new necklace have?	43
PERSON 2 NAME:		
2.1	What is the least common multiple of 8 and 6?	24
2.2	What is the area of a right triangle with a perimeter of 12, a hypotenuse of 5, and a base leg of 3?	6
2.3	A bag contains three red and seven green marbles. What percent of the marbles are green?	70 [%]
2.4	Rebecca, David, Josh, and Colin are sitting on a bench. How many ways can they be arranged?	24 [ways]
PERSON 3 NAME:		
3.1	Mr. Sampson has five girls in a class of 20 students. What is the probability that a student selected at random from Mr. Sampson's class is a girl?	$\frac{1}{4}$
3.2	The radius of a sphere is doubled. What is the ratio of the new volume to the old volume? Express answer in the form of a to b.	8 to 1
3.3	There are 2 whatsits in a thing and 4 things in 3 tics. How many tics does Tom have if he has 16 whatsits?	6 [tics]
3.4	A positive number times itself minus nine equals 160. What is the number?	13
PERSON 4 NAME:		
4.1	The Spokane airport can handle two hundred twenty-two airplanes an hour on its two runways. If Spokane were to add seven more runways, how many planes could it handle an hour?	999 [planes]
4.2	What is three-fourths times one-third plus two-thirds?	11/12
4.3	What is the base of a triangle whose area is 36 square inches and whose height is twice the base?	6 [in]
4.4	What time is it eleven hours and fifteen minutes before nine-ten PM? Include AM or PM in your answer.	9:55 AM

# "Math is Cool" Masters - 2004-05

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6th Grade - May 14, 2005

## Division 1 & 2

Written by Linda Moore

### COLLEGE KNOWLEDGE BOWL ROUND #1

#	Problem	Answer
1	How many multiples of 8 are less than 160 but greater than 50?	13
2	Valentine's Day is February 14 <sup>th</sup> . If January 1 <sup>st</sup> is a Sunday, what day of the week will Valentine's Day fall on that year?	Tuesday
3	Find the cube of negative 5.	-125
4	How many square meters are in the area of a circle whose circumference is 400 pi centimeters?	$4\pi$ [meters <sup>2</sup> ]
5	If $6x$ is less than 36, but $2x$ is greater than 10, how many whole number values for $x$ are possible?	0
6	A candle burns down at the rate of $\frac{1}{3}$ inch per hour. If the candle is 9 inches tall when I light it at 7:15 PM, how many inches tall will it be at 9:00 PM? [Express answer as a mixed number.]	$8\frac{5}{12}$ [inches]
7	Find the total number of dots on a pair of standard six-sided dice.	42 [dots]
	<b>Extra Problem - Only if Needed</b>	
8	How many prime square numbers are less than 100?	0

# "Math is Cool" Masters - 2004-05

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6th Grade - May 14, 2005

## Division 1 & 2

Written by Linda Moore

### COLLEGE KNOWLEDGE BOWL ROUND #2

#	Problem	Answer
1	Joel's turtle races at 2 feet per minute and Cam's turtle at 2 yards per minute. If they leave the starting point together, how many minutes will it take Cam's turtle to get 20 feet ahead of Joel's turtle?	5 [min]
2	The surface area of a cube is 54 square inches. How many inches long is each edge of the cube?	3 [inches]
3	The number "one zero one zero" in base 2 is equal to what in base 10?	10
4	Simplify the fraction $9/72$ . Then find the sum of the numerator and denominator of this reduced fraction.	9
5	An isosceles triangle has one side of length 7 centimeters and a perimeter of 29 centimeters. What is the length of the longest side of this triangle, in centimeters?	11 [cm]
6	Cherie counts by 8's starting with 5. Tom counts by 3's starting with 6. What is the smallest number that both Cherie and Tom will say?	21
7	The probability of rolling a sum of $S$ when rolling two dice is $1/18$ . Give both possible values for $S$ .	3, 11
	<b>Extra Problem - Only if Needed</b>	
8	If half of one-fourth is subtracted from two-thirds of 12, what is the result?	$6\frac{3}{8}$

# "Math is Cool" Masters - 2004-05

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6th Grade - May 14, 2005

## Division 1 & 2

Written by Linda Moore

### COLLEGE KNOWLEDGE BOWL ROUND #3

#	Problem	Answer
1	A 2 by 2 by 2 cube is made of unit cubes glued together. This big cube is painted on all exposed surfaces, then broken apart into the unit cubes from which it was made. How many of these unit cubes will have exactly 3 painted faces?	8 [unit cubes]
2	What is the largest prime factor of 150?	5
3	If I add 4 ounces of salt to a pound of sugar, the resulting mixture is what percent sugar?	80 [%]
4	I have 7 coins, with no more than three of any type of coin. What is the smallest number of cents I could have?	28 [cents]
5	Find the smallest natural number for which multiplying by 3 gives a larger result than adding 4.	3
6	Subtract 2005 from 20,050 [read as: twenty thousand fifty].	18,045
7	A palindrome is a number that is not changed when its digits are reversed. What is the smallest 3-digit palindrome that is a multiple of 9?	171
	<b>Extra Problem - Only if Needed</b>	
8	What time is it if 46 minutes from now will be 20 minutes before 1 AM?	11:54 PM

# "Math is Cool" Masters - 2004-05

6th Grade - May 14, 2005

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	7		
2	49		
3	$18\pi$		
4	$41/70$		
5	8		
6	$1/2$		
7	51 [numbers]		
8	15		
9	$2\frac{1}{3}$ [cups]		
10	30 [diag]		
11	1111		
12	6 <sup>th</sup> [day]		
13	330 [miles]		
14	6 [un <sup>2</sup> ]		
15	48 [ways]		
16	35 [degrees]		
17	$(\frac{-2}{5}, \frac{-1}{4}, 0, \frac{1}{3}, \frac{1}{2})$		
18	127		
19	40 [°]		
20	-24		

	Answer	1 or 0	1 or 0
21	March		
22	[\$] 91.00		
23	1/3		
24	9		
25	341		
26	7		
27	50 [yards]		
28	0		
29	105 [°]		
30	[base] 9		
31	2520		
32	25 [%]		
33	13 [students]		
34	25 [feet]		
35	1/3		
36	8/25		
37	$36\pi$ [in <sup>3</sup> ]		
38	$25\pi$ [in <sup>2</sup> ]		
39	1.5 [mph]		
40	160 [°]		

# "Math is Cool" Masters - 2004-05

6th Grade - May 14, 2005

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	B		
2	A		
3	E [Ans: 120]		
4	D		
5	C		
6	B		
7	B		
8	B		
9	E		
[Ans: Apple Valley 108.05]			

# "Math is Cool" Masters - 2004-05

6th Grade - May 14, 2005

Final Score:

# KEY

First Score

(out of 10)

School Name \_\_\_\_\_ Team # \_\_\_\_\_

Proctor Name \_\_\_\_\_ Room # \_\_\_\_\_

Div: \_\_\_\_\_

## Team Contest - Score Sheet

DO NOT WRITE IN SHADED REGIONS

Answer		1 or 0	1 or 0
1	59 [cm <sup>2</sup> ]		
2	78 [cm <sup>2</sup> ]		
3	24 [red M&M's]		
4	6 [\$5 bills]		
5	6		
6	-12		
7	6		
8	108		
9	65		
10	D		



# "Math is Cool" Masters -- 2004-05

KEY

6th Grade - May 14, 2005

School: \_\_\_\_\_ Team # \_\_\_\_\_

Proctor: \_\_\_\_\_ Room # \_\_\_\_\_ Div \_\_\_\_\_

## RELAY # 1

Answer for person # 1	Answer for person # 2	Answer for person # 3	Answer for person # 4
<b>26</b>	<b>169</b>	<b>83</b>	<b>7</b>
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
<b>13</b>	<b>32</b>	<b>6</b>	<b>15</b>
1 or 0	1 or 0	1 or 0	2 or 0

# "Math is Cool" Masters - 2004-05

Sponsored by: American Chemical Society  
6th Grade - May 14, 2005

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		

# "Math is Cool" Masters - 2004-05

6th Grade - May 14, 2005

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			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			

# "Math is Cool" Masters - 2004-05

6th Grade - May 14, 2005

Final Score:

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			
2			
3			
4			
5			
6			
7			
8			
9			

# "Math is Cool" Masters - 2004-05

6th Grade - May 14, 2005

Final Score:

First Score

(out of 10)

School Name \_\_\_\_\_ Team # \_\_\_\_\_

Proctor Name \_\_\_\_\_ Room # \_\_\_\_\_

Div: \_\_\_\_\_

## Team 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			