"Math is Cool" Championships – 2008-09

Sponsored by:

4th Grade – March 19, 2009

Individual Contest

GENERAL INSTRUCTIONS applying to all tests:

- *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.*
- *Unless stated otherwise:*
  - *For problems dealing with money, a decimal answer should be given.*
  - *Express all rational, non-integer answers as reduced common fractions.*
- *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.

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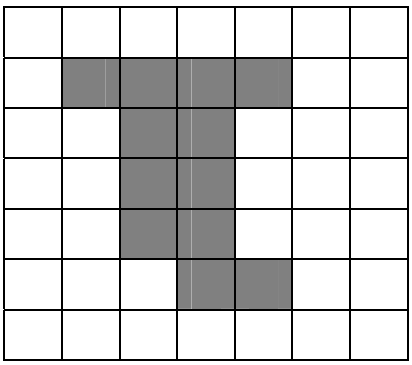
4th Grade – March 19, 2009

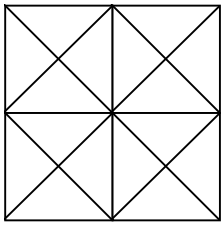
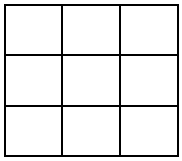
Individual Contest

Record all answers on the colored cover sheet.

1	What is 1 times 0?
2	If Andrew uses up 5 hours of his 12 hour battery on his laptop, then how many hours are left in the battery?
3	What is the area, in square feet, of a square with side length of 5 feet?
4	What is the perimeter, in inches, of an equilateral triangle with sides of length of 12 inches?
5	What is the quotient when 492 is divided by 3?
6	Tim has just inherited 17 acres of land and wants to build greenhouses on his new land. If each greenhouse has an area of 3 acres, how many complete greenhouses can Tim build?
7	If a wooden pencil costs 5 cents and a mechanical pencil costs 10 cents, then how many cents do 2 wooden pencils and 3 mechanical pencils cost?
8	What is 10 + 11 + 12 + 13?
9	Helen owns 9 elephants and Andrew owns 5 elephants. Elephants can eat 27 bags of peanuts in one day. How many bags of peanuts can Andrew's elephants eat in one day?
10	If the area of a rectangle is 10 square centimeters and the length of one side is 5 centimeters, then what is the length of the other side, in centimeters?
11	One out of every 4 fish in a particular lake has spots. Out of 24 fish from this lake, how many fish would you expect to have spots?
12	Find the missing number to make this a true statement: (56 x 4) + (56 x 5) + (56 x 6) + (56 x 8) = 56 x ___.
13	Suppose that Tom buys 10 apples and eats 2 of them right away. Then suddenly a random chipmunk appears and eats half of the remaining apples. How apples does Tom have left?
14	If the number of bacteria on a kitchen sink doubles every 5 minutes, then how many bacteria would there be in 15 minutes, given that there was 1 bacterium initially?
15	What is the area, in square feet, of a triangle with a height of 6 feet and a base of 10 feet?
16	If Hannah rolls a six-sided die and flips two coins, then how many possible ways exist of getting an even number on the die and 1 head and 1 tail from the coins?
17	If I flipped 10 coins and got 7 tails, how many heads did I get?
18	What is the sum of the two missing terms of this sequence: 1, 1, 2, 3, 5, 8, ___, _____, 34
19	A certain plant grows 2 flowers every day until 10 flowers are grown, at which point the plant is considered fully grown. How many days are required for 3 plants to be fully grown if the first plant grows its first flower on the first day, the second plant grows its first flower on the second day, etc?

20	Put the following numbers A, B, C, D and E in order from greatest to smallest: A = Area of a triangle with a height of 10 and base of 2. B = Area of a square with side of length 4. C = Area of a rectangle with sides of length 7 and 2. D = The mean of A, B and C E = The range of the set of numbers: {A, B, C}
21	What is the difference between the sum of the first 10 counting numbers and the sum of the first 5 counting numbers?
22	In how many ways can you roll a sum of 7 with 2 standard six-sided dice?
23	If (a * b) = 2a + 2b, then what is ((1 * 2) * 3)?
24	My neighbor wants to make a pen for her horses with 100 feet of fencing. What shape should the pen be if she wants to give her horses the most space possible?
25	What is the product of 145 and 63?
26	What number can you add to 67 so that the resulting sum is equal to two times 70?
27	If today is Sunday, then what day is it 69 days after tomorrow?
28	If Amanda runs 2 miles every day, then how many miles has she run by the end of June, if she started running on June 1st?
29	If 20 – x = 15, then what is 3x?
30	What is the ratio of the shaded figure's area to the shaded figure's perimeter? 

Challenge Questions

31	Bertha has a special number. If you add the digits of Bertha's number and double it, then you get Bertha's number again. What is Bertha's number?
32	What is the sum of the two largest 2-digit distinct counting numbers that are not multiples of 2, 3 or 5?
33	How many possible 7 digit phone numbers are possible if the first three digits must be odd and the last digit must be prime?
34	If Ryan draws a rectangle and draws squares protruding out on each side of the rectangle, then what is the area, in square yards, of the new figure if the original rectangle has sides of length 4 yards and 6 yards?
35	Let (a @ b) = (a + b)(a – b), then what is ((5 @ 4) @ 3)?
36	If 1 + 3 + 5 + ...+ 99 = 2500, then 2 + 4 + 6 + ... + 100 = x. What is the value of x?
37	Assign the numbers 4, 5, 1 and 6 each once for w, x, y and z in the expression $(x + y) \div (w + z)^2$ and evaluate to find an answer. What is the largest possible answer you can get? Express your answer as a decimal OR as a fraction. [Note: 3^2 means 3 x 3]
38	How many triangles are in this figure? 
39	In a soccer tournament with eight teams, how many games will be played if each team is to play every other team twice?
40	Each small square has an area of 4 units squared. If a rectangle is picked at random from all possible rectangles, what is the probability it has a perimeter of 12? 

"Math is Cool" Championships – 2008-09

Sponsored by:

4th Grade – March 19, 2009

Team Multiple Choice Contest

Triscia has taken to feeding the birds at her house and has various bird feeders around the yard. Since she started feeding the birds, the bird population has grown and to keep costs down, Triscia only fills the bird feeders or puts seed on the ground so many times per week as shown below:

Type of Feeder	**How many?**	**# cups needed to fill it**	***Largest number of birds per feeder**	**Type of Seed**	**# of times refilled in a week**
Ground (Just spread food on ground)	1 place	40	Not Applicable	Black Oil Sunflower Seed	1
Thistle Seed Feeder	2	4	6	Thistle Seed	2
Octagonal Prism Feeder	1	20	12	Wild Bird Seed	1
Wooden Tray Feeder	1	7	15	Black Oil Sunflower Seed	3

1	Triscia's favorite birds are the gold finch and they love thistle seed! Triscia has one thistle seed feeder outside her dining room window. How much will it cost her to fill this feeder one time with thistle seed? A) $1 B) $2 C) $3 D) $4 E) Answer not given.
2	How many total cups of seed (thistle, wild bird seed & black oil sunflower seeds) does Triscia put out for the birds each week? A) 97 B) 89 C) 57 D) 49 E) Answer not given.
3	What is the largest number of birds that can be fed at one time on the three types of bird feeders (thistle seed feeders, octagonal prism feeder and wooden tray feeder) available in Triscia's yard? A) 27 B) 29 C) 33 D) 39 E) Answer not given.
4	In the spring when the quail come to eat at Triscia's house, they eat 50% of the black oil sunflowers per week from both the ground and the wooden tray feeder. How many cups of black oil sunflowers do the quail eat per week when they are visiting? A) 10.5 B) 20 C) 23.5 D) 30.5 E) Answer not given.
5	On average, how many total cups of bird feed do all Triscia's birds eat each day? [Round to the nearest whole number.] A) 4 B) 5 C) 8 D) 10 E) Answer not given.
6	If at one time there are 162 birds at Triscia's house eating bird seed and all the bird feeders are full, how many birds are eating on the ground? A) 93 B) 123 C) 129 D) 135 E) Answer not given.

7	On a lazy afternoon, Triscia's cat, Isaac Newton, likes to watch the birds from under a bush. As you can imagine, this makes the birds very nervous and they no longer eat the seeds on the ground. If Triscia stops putting sunflower seeds on the ground, what is the least number of times Triscia would have to fill the wooden tray bird feeder in a week to ensure that the birds have at least the same amount of sunflower seeds each week they would normally have if seeds were still put on the ground? A) 6 B) 7 C) 8 D) 9 E) Answer not given.
8	Triscia buys the black oil sunflower seed in 45.75 pound bags. If 3 pounds of black oil sunflower seed is equivalent to one gallon of seed, how many weeks will one 45.75 pound bag last Triscia? Choose the best answer. A) 5 B) 4 C) 3 D) 2 E) 1
9	Thistle seed costs $0.50 per cup, wild bird seed costs $0.12 per cup and black oil sunflower seed costs $0.25 per cup . "How much does Triscia pay for all the bird feed she uses in a week?" A) $16.15 B) $15.65 C) $21.65 D) $25.65 E) Answer not given.

Problem Restated: Triscia has taken to feeding the birds at her house and has various bird feeders around the yard. Since she started feeding the birds, the bird population has grown and to keep costs down, Triscia only fills the bird feeders or puts seed on the ground so many times per week as shown below:

Type of Feeder	**How many?**	**# cups needed to fill it**	****Largest number of birds per feeder**	**Type of Seed**	**# of times refilled in a week**
Ground (Just spread food on ground)	1 place	40	Not Applicable	Black Oil Sunflower Seed	1
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Octagonal Prism Feeder	1	20	12	Wild Bird Seed	1
Wooden Tray Feeder	1	7	15	Black Oil Sunflower Seed	3

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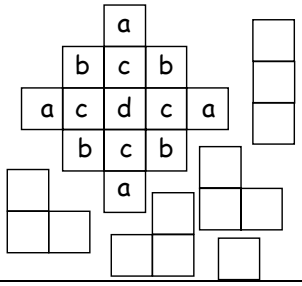
4th Grade – March 19, 2009

Team Contest

1	Suzanne has 14 pairs of shoes. How many shoes does Suzanne have?
2	Alex had already read 49 pages of his 314-page book when Randy started reading. Alex finished the rest of his book in the same time it took Randy to read two books, one of 93 pages and one of 89 pages. How many more pages did Alex read during this time than Randy?
3	Matt's jacket had 6 buttons down the front, two on each sleeve, and one on each of the two pockets. After a day of sledding and snowball-fighting, Matt had lost one-third of the buttons on his jacket. How many buttons did Matt have left on his jacket?
4	Karen gets two dimes, four nickels, and one quarter for each quarter-hour she spends dusting. If she starts dusting at 11:40 AM and finishes dusting at 5 minutes before 2:00 PM, how much money (in dollars) has she earned? [Express your answer as a decimal.]
5	The 5 puzzle pieces fit into the frame shown. Give the letter or letters (a, b, c, d) of all squares where the single square puzzle piece could go. (Puzzle pieces may be flipped or turned to fit in the frame.) 
6	In the phrase "MATH IS COOL", each letter stands for a different digit and each word stands for a number. If the product of all the digits is 0, what is the largest possible sum of MATH + IS + COOL?
7	The mode of a set of values is the value that occurs most often. Jackie kept a record of how many dog biscuits her dog Zero ate each day for a week. She wrote: Sunday, 4; Monday, 7; Tuesday, 3; and Wednesday, 5. Jackie lost her records for the rest of the week, but she remembers that the average was 4 biscuits per day and that Zero ate at least one dog biscuit each day. What was the mode of all seven of Jackie's recorded values for the week if there was only one mode? Give all possible answers.
8	The first term of a certain number pattern is 5, the second term is 515, the third term is 51515, and so on. The number of digits increases by two with each new term, and there is always a "1" between each pair of 5s. How many times would you write the digit "5" in writing the first 8 terms of this pattern?
9	Five coins (a penny, a nickel, a dime, a quarter, and a half-dollar) are in a box. Alma, Brenda, Clara, Dora, and Edna reach into the box, and each girl takes one coin, at random. They sit in a circle, in alphabetical order of their names, and Alma passes her coin to Brenda. Brenda keeps the coin of larger value, and passes the other coin to Clara. This continues until Alma has one coin again. What is the probability (as a fraction) that Alma gets the same coin she started with?
10	48 points are marked around a circle, spaced an equal distance apart. They are numbered in order, 1 through 48. What point is opposite number 17?

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4th Grade – March 19, 2009

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!*

	Practice Relay	Answer
Person 1	How many digits are in the number 74,389?	5
Person 2	Evaluate: TNYWG + 6	11
Person 3	Evaluate: TNYWG – 9	2
Person 4	Evaluate: 6 x TNYWG + 1	13
	Relay #1	Answer
Person 1	What is the average (mean) of 10 and 20?	15
Person 2	What is the sum of TNYWG and 10 times the TNYWG?	165
Person 3	What is the TNYWG divided by 5?	33
Person 4	Find the product of TNYWG and TNYWG/3.	363
	Relay #2	Answer
Person 1	Find the area of a rectangle with sides of length 8 and 4, then subtract 5.	27
Person 2	Find the area of a triangle with base of (20 ÷ 2) and height of (6 x 2), then add TNYWG.	87
Person 3	Find the area of a square whose side length is 2 less than the number of sides on a pentagon. Add this result to the remainder of TNYWG divided by 5.	11
Person 4	A prime number has only two numbers that divide into it with no remainder (1 and the prime number itself). If TNYWG is prime, then find the sum of the area of a square of side length of TNYWG and the area of a square of side length 11. If TNYWG is not prime, find the sum of the area of a rectangle with sides of length 6 and 7, and the area of a triangle whose base is TNYWG and height is 10.	242

"Math is Cool" Championships – 2008-09

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4th Grade – March 19, 2009

Final Score:

KEY

School Name_____Team #_____

Proctor Name_____Room #_____ Division: ____

MENTAL MATH - 30 seconds per question

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 eight, nine and ten.	27
1.2	How many total cents is one nickel, two dimes and one quarter?	50 [cents]
1.3	What is the probability of picking a red card from a standard deck of cards?	1/2 [or equiv frac]
1.4	What is three-fifths of 25?	15
PERSON 2 NAME:		
2.1	Find the product of one, six and eight.	48
2.2	Katie has 3 red shirts, 5 blue shirts and 3 orange shirts. If Katie picks one shirt at random, what is the probability that Katie picks an orange shirt?	3/11 [or equiv frac]
2.3	What is the remainder when you divide 113 by 7?	1
2.4	What is the perimeter of a square, in feet, that has an area of 100 square feet?	40 [ft]
PERSON 3 NAME:		
3.1	Find the quotient of 63 and 9.	7
3.2	How many total pints is 1 gallon, 3 quarts and 1 pint?	15 [pints]
3.3	Find the sum of the next two terms in the sequence whose first three terms are 3,4 and 5.	13
3.4	When 14 is subtracted from my number, the answer is 12. What is my number?	26
PERSON 4 NAME:		
4.1	Multiply eight times the sum of four and seven.	88
4.2	What is the eleventh term of the sequence whose first three numbers are 3, 6, 9?	33
4.3	How many inches total is 1 yard, 2 feet and 2 inches?	62 [in]
4.4	What is the perimeter of a regular octagon with side length of 1 and three-fourths?	14 [un]

"Math is Cool" Championships – 2008-09

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4th Grade – March 19, 2009

Set A

COLLEGE KNOWLEDGE BOWL ROUND #1

#	Problem	Answer
1	For Science class, each student needs to have one worm. If there are three classes with 20 students each and two classes each with 14 boys and 13 girls, how many worms are needed?	114 [worms]
2	If it takes two and one-half cups of flour to make one batch of chocolate chip cookies, how many cups of flour will it take to make four batches of chocolate chip cookies?	10 [cups]
3	What is five squared plus the first even number greater than ten?	37
4	One-fifth of the animals on Dog Street are cats, one-half of the animals are dogs and the rest are turkeys. If there are 30 animals on Dog Street, how many turkeys are there on Dog Street?	9 [turkeys]
5	Find the sum of the smallest number in the set of numbers and mode of the set of numbers: 9, 6, 16, 4, 9, 2, 3	11
6	A leap year occurs when the year is divisible by 4. A century year occurs when the year is divisible by 100. A century year is a leap year if it is divisible by 400. Name the most recent century leap year.	2000
7	An apartment currently rents for seven hundred fifty dollars a month. The monthly rent is expected to increase fifteen dollars every twelve months. What will the monthly rent be at the end of five years, in dollars?	[$] 810
	Extra Problem – Only if Needed	
8	How many different ways can you arrange the letters in the word "ANT"?	6 [ways]

"Math is Cool" Championships – 2008-09

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4th Grade – March 19, 2009

Set A

COLLEGE KNOWLEDGE BOWL ROUND #2

#	Problem	Answer
1	Each ant hill in Karen's yard contains 1000 ants. Each ant hill in Annie's yard contains 750 ants. If Karen has 5 ant hills in her yard and Annie has 4 ant hills in her yard, how many total ants are in the ant hills in Karen's and Annie's yard?	8000 [ants]
2	Find the positive difference of the area of a rectangle of sides of length 8 and 12, and the area of a square with perimeter of 36.	15 [un^2]
3	What is the smallest four-digit counting number which has exactly two digits that are the same?	1002
4	Evaluate: The smallest prime number multiplied by 8 squared.	128
5	If Amanda has a rectangular garden with an area of 35 square feet and one side has a length of 7 feet, how much fencing, in feet, will she need to enclose the perimeter of her garden?	24 [feet]
6	Mark purchased four pens at 70 cents per pen. The total sales tax on his purchase was fourteen cents. He paid for his purchase with a ten dollar bill. How much money, in dollars, did he get back?	[$] 7.06
7	Evaluate: Two-thirds times two-thirds.	4/9 [or equiv]
	Extra Problem – Only if Needed	
8	When will it be 3 hours 46 minutes past 5:45 am?	9:31 AM

"Math is Cool" Championships – 2008-09

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4th Grade – March 19, 2009

Set A

COLLEGE KNOWLEDGE BOWL ROUND #3

#	Problem	Answer
1	A committee is made up of three women and four men. What fraction of the committee members are men?	4/7 [or equiv]
2	Using pennies, nickels, dimes and quarters, what is the least number of coins needed to make 68 cents?	7 [coins]
3	How many odd numbers are between 12 and 36?	12 [numbers]
4	What is 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10?	55
5	What is the largest number of times a triangle and a circle could cross each other?	6 [times]
6	Reduce the fraction 4/12 to lowest terms.	1/3
7	Evaluate: A – B + C Where A = 100 ÷ 2 Where B = the number of red cards in a standard deck of 52 cards Where C = the number of socks in 12 pairs	48
	Extra Problem – Only if Needed	
8	Today Amanda is two years older than David. In ten years, how many years older will Amanda be than David?	2 [years]

"Math is Cool" Championships – 2008-09

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4th Grade – March 19, 2009

Set B

COLLEGE KNOWLEDGE BOWL ROUND #1

#	Problem	Answer
1	There are three "Math is Cool" regions in Washington State where each region has 35 schools competing and each school brought 3 teams. How many total "Math is Cool" teams are competing in Washington?	315 [teams]
2	What is the sum of the number of ounces in a pound, the number of inches in a yard, and the number of days in a week?	59
3	How many boards of length two feet six inches, can be cut from a board 20 feet long?	8 [boards]
4	Grace attends ballet class three days a week for one and one half hours each day. How many total hours does Grace attend ballet class in twenty weeks?	90 [hours]
5	Caleb rides his motorcycle after school 55 percent of the time and he chews gum 45 percent of the time. If he rides his motorcycle AND chews gum 20 percent of the time, what percentage of the time does he ride his motorcycle without chewing gum?	35 [%]
6	What is the hundreds digit when you multiply 63 by four hundred fifty two?	4
7	What is the difference between the number of ways to arrange four people in a line and the number of ways to arrange three people in line?	18
	Extra Problem – Only if Needed	
8	A five-ringed binder has 31 sheets of paper contained in the rings. How many holes were punched in these sheets of paper to put them in the rings?	155 [holes]

"Math is Cool" Championships – 2008-09

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4th Grade – March 19, 2009

Set B

COLLEGE KNOWLEDGE BOWL ROUND #2

#	Problem	Answer
1	If one angle of a right triangle is 23 degrees, what is the measure of the other acute angle, in degrees?	67 [°]
2	What is the radius of a circle, in feet, that has a diameter of 4 yards?	6 [ft]
3	Two hundred eighty five is five times what number?	57
4	What is the sum of all the one-digit prime numbers?	17
5	Talitha took a multiple choice test portion of an exam. For every wrong answer she gives, one-fourth of a point is subtracted from her exam score. If there are 44 questions on the multiple choice test, what is the lowest score Talitha could make?	-11 [points]
6	If Kendall has 6 red marbles, 5 blue marbles, 3 white marbles and 2 yellow marbles in a bag, what is the probability that she will draw one yellow marble out of the bag?	1/8 [or 2/16 or equiv]
7	Evaluate the product of 24 and 26.	624
	Extra Problem – Only if Needed	
8	How many eggs would each person have if 2 dozen eggs were divided equally among 6 people?	4

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4th Grade – March 19, 2009

Set B

COLLEGE KNOWLEDGE BOWL ROUND #3

#	Problem	Answer
1	Terry is 5 feet 3 inches tall, and Chris is 4 feet 10 inches tall. How many inches taller is Terry than Chris?	5 [in]
2	How many different counting numbers have two digits?	90 [ctg num]
3	An outfit is made up of 1 hat, 1 shirt, and 1 pair of pants. If Grace has 5 hats, 5 shirts and 3 pants to wear on any given day, how many different outfits can she wear?	75 [outfits]
4	If "A" equals 9 and "B" equals 21, evaluate the following: A times B	189
5	Including Caroline, how many total legs are there if Caroline has 3 dogs?	14 [legs]
6	How many diagonals can be drawn in a rectangle?	2 [diagonals]
7	What is the smallest counting number into which both 10 and 15 will divide with no remainder?	30
	Extra Problem – Only if Needed	
8	What is the sum of the units digit of forty-three and the tens digit of eighty-seven?	11

"Math is Cool" Championships – 2008-09

4th Grade – March 19, 2009

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	0		
2	7 [hours]		
3	25 [ft^2]		
4	36 [in]		
5	164		
6	5 [greenhouses]		
7	40 [cents]		
8	46		
9	135 [bags]		
10	2 [cm]		
11	6 [fish]		
12	23		
13	4 [apples]		
14	8 [bacteria]		
15	30 [ft^2]		
16	6 [ways]		
17	3 [heads]		
18	34		
19	7 [days]		
20	BCDAE [in that order]		

	Answer	1 or 0	1 or 0
21	40		
22	6 [ways]		
23	18		
24	Circle		
25	9135		
26	73		
27	Sunday		
28	60 [miles]		
29	15		
30	12/20 [6/10 or 3/5 or equiv]		
31	18		
32	188		
33	500,000		
34	128 [yd^2]		
35	72		
36	2550		
37	11/25 [or .44]		
38	44 [triangles]		
39	56 [games]		
40	12/36 [6/18 or 3/9 or 1/3 or equiv]		

"Math is Cool" Championships – 2008-09

4th Grade – March 19, 2009

School Name_____Team #_____

Proctor Name_____Room #_____Division: _____

Final Score:
KEY

First Score

(out of 18)

Team Multiple Choice Contest – Score Sheet

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.

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	D		
4	D		
5	E [14 cups]		
6	B		
7	D		
8	B		
9	D		

"Math is Cool" Championships – 2008-09

4th Grade – March 19, 2009

Final Score:
KEY

First Score

(out of 20)

School Name_____Team #_____

Proctor Name_____Room #_____Div: _____

Team Contest – Score Sheet

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. Each problem is scored as a 2 or 0.

DO NOT WRITE IN SHADED REGIONS

	Answer	2 or 0	2 or 0
1	28 [shoes]		
2	83 [pages]		
3	8 [buttons]		
4	[$] 5.85		
5	b		
6	18465		
7	3, 4 [biscuits] [either order]		
8	36 [times]		
9	1/5 [or equiv frac]		
10	[#] 41		

"Math is Cool" Championships -- 2008-09

KEY

4th Grade – March 19, 2009

School:_____Team #_____

Proctor: _____ Room #_____Div _____

PRACTICE RELAY

Answer for person # 1	Answer for person # 2	Answer for person # 3	Answer for person # 4
5	**11**	**2**	**13**
1 or 0	1 or 0	1 or 0	2 or 0

RELAY # 1

Answer for person # 1	Answer for person # 2	Answer for person # 3	Answer for person # 4
15	**165**	**33**	**363**
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
27	**87**	**11**	**242**
1 or 0	1 or 0	1 or 0	2 or 0