"Math is Cool" Championships – 2007-08

Sponsored by:

6th Grade – March 14, 2008

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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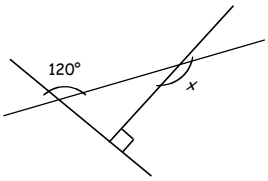
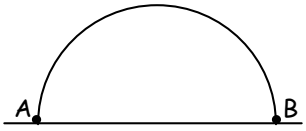
Individual Contest

Record all answers on the colored cover sheet.

1	Evaluate: 35213 – 5102
2	What is the remainder when 731 is divided by 11?
3	How many sides does a trapezoid have?
4	Evaluate $\frac{4}{15}+\frac{1}{3}$ and give your answer as a reduced common fraction.
5	There are 23 people and 5 cars, and each car can hold up to 5 people. How many people will be in the last car if the other cars are filled?
6	What is the sum of the following numbers? 20, 21, 22, 23, 24, 25, 26, 27, 28
7	One clown can hold 18 balloons. At this rate, how many balloons can 7 clowns hold?
8	A certain regular polygon with sides of length 9 cm has a perimeter of 45 cm. What is the <u>name</u> of this polygon?
9	If $3x-6=24$, what is x? ("$3x$" means 3 times x.)
10	How many of the digits of 2008 are even?
11	What is the greatest common factor of 42 and 105?
12	Three consecutive whole numbers have a sum of 18. Find the sum of the largest and the smallest of the three numbers. ("Consecutive" means following in order, without skipping any. For example, 33 and 34 are consecutive whole numbers.)
13	Evaluate: $7\times5\times3\times4+1$
14	How many ways can I arrange the letters in the word 'THREE'?
15	What time is it 8 hours and 17 minutes after 7:21 AM?
16	As an ordered pair (x, y), name the point that is 4 units up and 2 units to the right of the point (6, 0) on a coordinate grid.
17	True or False: $3+3\times7=42$
18	The product of 8, negative 3, and my number is 24. What is my number?
19	Biff's parents pay him 7 dollars for an "A", 5 dollars for a "B", and 3 dollars for a "C". Biff has 6 classes and got a total of 34 dollars. Biff had more B's than A's. How many A's did he get?

20	Jenny drew the largest possible circle inside a square of area 900 square inches. What was the area of Jenny's circle, in square inches?
21	Subtracting 799 from 1700 gives the same result as multiplying 17 by what number?
22	The Tornadoes have won 75% of their games. If they win their next 4 games, their win percentage goes up to 80%. How many games have they played right now?
23	How many degrees does the hour hand of a clock travel from 8:00 AM to 10:30 PM the same day?
24	On a road trip, Derek travels 240 miles, driving 40 miles per hour (mph) for the first 3 hours and 30 mph for the remainder of the trip. What was Derek's average speed for the whole trip, in miles per hour? If your answer is not an integer, give it as a reduced common fraction.
25	What is the units digit of 278^{278}?
26	The area of a rectangle with side lengths 4 units and x units is 14 square units more than the area of a right triangle with legs of 4 units and x units. What is x?
27	Find the next number in the following sequence: 1, 2, 5, 10, 17, 26, __
28	What is the measure of angle x, in degrees? 
29	The digits 7, 2, 5, and 8 are used to form two positive integers (counting numbers). All four digits are used, and no digit is used more than once. When these two integers are added together, what is the largest possible sum that could result?

Challenge Questions

30	I take a number, double it, subtract 20, and take the square root of that result. I get 12. What was my original number?
31	Timmy and Tommy play "Rock, Paper, Scissors" together. Tommy wins 1/3 of the time, and they tie 1/6 of the time. Timmy wins the rest of the time. If they play 144 games, how many more games would you expect Timmy to win than Tommy?
32	A solid hemisphere of radius 10 cm is glued to a table with its flat side down. Two ants, Ann and Andy, travel from point A to point B. Ann stays on the table and Andy goes over the top of the hemisphere, each taking the shortest path for her or her route. How many cm more does Andy travel than Ann? 
33	My number has 3 digits. None of the digits is a multiple of any other of the digits. When divided by 9, my number has a remainder of 3. What is the largest my number could be?
34	Colin has 15 coins in his pocket. If each of his coins is either a nickel, a dime, or a quarter, and the total value of his coins is $2.10, how many dimes does Colin have? Give all possible answers.
35	I'm thinking of a 2-digit prime number that is 3 more than a square number. Find the sum of all the numbers I could be thinking of.
36	The class average in physics at Math is Cool Grade School was 90%. After two students with 80% averages dropped the class, the average rose to 95%. How many students are in the class now?

37	When I add 5 to my number, the sum is even. When I divide my number by 5, there is no remainder, the quotient has 2 digits, and the sum of these 2 digits is 10. What is the smallest 3-digit positive number that my number could be?
38	Two rectangular prisms, each with dimensions 5 by 6 by 8 inches, are glued together along congruent faces to form a new, larger rectangular prism. What is the difference, in square inches, between the largest and smallest possible surface area of the new prism?
39	Maddie has written a book and has numbered all the pages by hand. The product of the last two page numbers in her book is 4422. Of all the digits Maddie wrote in numbering the pages of her book, what fraction were "6"?
40	Doris loves making outfits. An outfit consists of a matching pair of shoes, a hat, a shirt, and a skirt. Doris has 3 hats, 5 shirts, 4 skirts, and 14 pairs of shoes, including exactly one yellow hat, one yellow shirt, and one yellow skirt (but no yellow shoes). If she never wears two or more yellow items at the same time, how many different outfits can Doris make?

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Team Multiple Choice Contest

Ellen is making sugar cookies for her classmates. She can make three different types of cookies: chewy, crispy, or fluffy. The table shows the amounts of ingredients needed for one batch of each type of cookie. One batch makes 24 cookies.

	Chewy	**Crispy**	**Fluffy**
Flour	**2 cups**	**? cups**	**2 cups**
Milk	**0.5 cups**	**0.25 cups**	**0.75 cups**
Butter	**0.5 cups**	**1 cup**	**0.5 cups**
Sugar	**? cups**	**0.75 cups**	**0.75 cups**
Baking Powder	**1 teaspoon**	**0.75 teaspoons**	**1.25 teaspoons**

1 If Ellen wants to make 48 chewy cookies, how many cups of milk does she need?

A) 1.5 B) 0.5 C) 1 D) 0.75 E) 0.25

2 A batch of crispy cookies uses $\frac{7}{8}$ as much flour as is needed for a batch of chewy cookies. How many cups of flour are needed to make one batch of crispy cookies?

A) $\frac{7}{8}$ B) 1.125 C) $2\frac{7}{8}$ D) 1.75 E) Answer not given

3 What is the positive difference between the amount of baking powder needed for one batch of crispy cookies and the amount needed for one batch of fluffy cookies? Give your answer in teaspoons.

A) 3/4 B) 0.25 C) 1/2 D) 1 E) 0

4 Ellen started with 5 cups of sugar in her sugar canister. After baking one batch of each type of cookie, she had $2\frac{2}{3}$ cups of sugar left in the canister. How many cups of sugar are needed to make one batch of chewy cookies?

A) $\frac{5}{6}$ B) $1\frac{1}{3}$ C) $\frac{3}{4}$ D) $\frac{2}{3}$ E) $2\frac{1}{3}$

5	There are 18 students in Ellen's class. If she wants to make enough chewy cookies to give each student three of them, how many ounces of butter will she need? (There are two cups of butter in a pound.) A) 12 B) 9 C) 4 D) 18 E) 6
6	Ellen thinks she might like to make crispy cookies that have the same shape and thickness but twice the diameter of the cookies she makes with her original recipe. The original (circular) cookies have a radius of 1.5 inches. How many cups of sugar would she need to make a complete batch of 24 of the enlarged crispy cookies? A) 0.75 B) 1.5 C) 2.25 D) 3 E) Answer not given
7	By volume, what is the ratio of butter to milk in a batch of fluffy cookies? A) 2:3 B) 1:3 C) 2:5 D) 1:1 E) 3:2
8	While mixing the flour, milk, butter, and sugar for a batch of fluffy cookies, Ellen accidentally added too much flour. Her mixture now totals 4.5 cups. (Assume that the volume does not change when the ingredients are mixed.) How many cups of sugar would Ellen need to add to this mixture to keep the same proportions of sugar to flour as in the original recipe? A) $\frac{1}{2}$ B) $\frac{3}{16}$ C) $\frac{1}{4}$ D) $1\frac{1}{8}$ E) $\frac{11}{16}$
9	One day, Ellen tried a new recipe for ginger cookies. She mixed the ingredients in a bowl that is a perfect hemisphere. If the diameter of the bowl is 6 units and the dough mixture filled 1/4 of the bowl's volume, what was the volume of the ginger cookie dough, in cubic units? A) $\frac{9}{4}$ B) 4π C) 9π D) 9 E) $\frac{9\pi}{2}$

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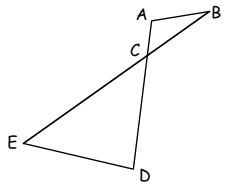
Team Contest

1	Find the largest whole number n such that the number you get when you subtract 4 from n is smaller than the number you get when you divide n by 4.
2	An arithmetic sequence is a sequence of terms (numbers) that are equally spaced along the number line. Tina copied an arithmetic sequence from the board. However, she left out one term and reversed the digits of another term. Here is what Tina wrote: 27, 43, 41, 55. What is the term she left out?
3	Arturo, Benjie, and Calvin bought an ice-cream cake that cost \$12. Arturo paid \$6, Benjie paid \$2, and Calvin paid the rest. Arturo ate $\frac{1}{4}$ of the cake, Benjie ate $\frac{2}{3}$ of the cake, and Calvin ate the rest. If each person should pay in proportion to the amount he ate, how many dollars does Benjie owe Calvin?
4	Three robins ate 39 cherries in 5 minutes. At this rate, how many cherries would four robins eat in half an hour?
5	My number is a counting number that has a remainder of 3 when divided by 7, but has no remainder when divided by either 6 or 5. What is the smallest my number could be?
6	Vivek is practicing mental math problems for a math contest. After each practice round, his sister gives him two cookies for every problem he got right, and then takes away one cookie for every problem he got wrong. For one set of 16 problems, all of which he answered, he got two more right than wrong. How many cookies should he have?
7	A box of printer paper holds ten reams, and each ream consists of 500 sheets of paper. How many sheets of paper are in a stack of five boxes of printer paper?
8	It is known that the square of any integer is either a multiple of 4 or is one more than a multiple of 4. Val is finding the squares of all the prime numbers less than 75. How many of these squares will have a remainder of 1 when divided by 4?
9	If CD = CE and angle ACB = 40°, what is angle CDE, in degrees? (The figure is not necessarily drawn to scale.) 
10	Lucky Luke visits a booth at the Math Team Carnival that displays a solid cube 5 units on an edge. This cube has been painted red on all outer surfaces. The carnival operator then cuts the cube apart into unit cubes (each 1 unit on an edge), and puts all these unit cubes in a box. Luke reaches into the box and chooses one unit cube at random. If Luke's cube has a probability of less than $\frac{1}{4}$ of landing with a red face up when it is rolled, he will win a prize. As a reduced common fraction, what is the probability that Luke will get lucky and win a prize?

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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	What is the product of 23 and 6?	138
Person 2	What is the remainder when TNYWG is divided by 5?	3
Person 3	What is the sum of 49 and TNYWG?	52
Person 4	What is the sum of the digits of TNYWG?	7
	Relay #1	Answer
Person 1	An even counting number is divided by 4. You know that the remainder is not 2. What is the remainder?	0
Person 2	What is the sum of TNYWG and the sum of the numerator and denominator when the fraction 36/48 is fully reduced?	7
Person 3	Find the sum when TNYWG is added to the sum of the distinct prime factors of 280.	21
Person 4	What is the number of square units in the area of a trapezoid with height TNYWG units and bases of 4 units and 28 units?	336 [sq units]
	Relay #2	Answer
Person 1	Find the sum of 14 and negative 4, and then double this sum.	20
Person 2	If you have TNYWG coins, and no more than 8 of any type of coin, what is the least number of cents you could have?	88 [cents]
Person 3	The 2-digit number TNYWG is a palindrome since it does not change when its digits are reversed. Counting TNYWG, how many integers between TNYWG and 2 times TNYWG (inclusive) are palindromes?	10 [integers]
Person 4	Subtract TNYWG raised to the third power from 2 raised to the power TNYWG.	24

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Final Score:
KEY

School Name_____Team #_____

Proctor Name_____Room #_____ Division: ____

Mental Math Contest

MENTAL MATH - 30 seconds per question

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	What is the area in square centimeters of a circle with diameter 12 centimeters?	36π [cm^2]
1.2	What is the sum of the different prime factors of 99?	14
1.3	Find X if twice X plus one is 17.	[X=] 8
1.4	If Kai runs fifteen miles in ninety minutes and continues running at that rate, how many hours would it take him to run sixty miles?	6 [hours]
PERSON 2 NAME:		
2.1	Find the next term in the following sequence: three, one, negative one, negative three, and so on.	-5 [or negative 5]
2.2	Kobe Bryant only makes two-point and three-point baskets. He made six baskets and scored fourteen points. How many three-point baskets did he make?	2 [baskets]
2.3	How many months are in one and a half years?	18 [months]
2.4	One angle of an isosceles triangle measures 100 degrees. What is the degree measure of the smallest angle of this triangle?	40 [degrees]
PERSON 3 NAME:		

3.1	Evaluate: the square of 20 minus the square of 5.	375
3.2	The probability that Helen will fall into the lake is one-fourth. The probability that Miya will fall into the lake is one-half. What is the probability that both Helen and Miya will fall into the lake, if these two events are independent?	1/8
3.3	Find the smallest whole number greater than pi.	4
3.4	In a certain sequence, each term is twice the previous term. Find the sixth term in this sequence if the first term is 4.	128
PERSON 4 NAME:		
4.1	What is the perimeter in centimeters of a right triangle whose longest side is 5 centimeters and whose sides are all whole numbers of centimeters?	12 [cm]
4.2	I have twice as many nickels as quarters. If I have twenty cents worth of nickels, how many <u>cents</u> do I have in all?	70 [cents or ¢] [but <u>not</u> 0.70 or $.70]
4.3	Find the value of 3 minus 18, then add 20.	5
4.4	If four-dozen doughnuts are put into three bags with equal numbers of doughnuts in each bag, how many doughnuts will be in each bag?	16 [doughnuts]

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Division 1

COLLEGE KNOWLEDGE BOWL ROUND #1

#	Problem	Answer
1	How many cents do I have if I have two quarters, three dimes, and four pennies?	84 [cents]
2	At a local pet store, two cats cost the same amount as one dog, and two dogs cost the same amount as seven fish. How many fish will it take to equal the cost of eight cats?	14 [fish]
3	Josh drank six cups of tea during the 16 hours he was awake yesterday. On average, how many cups of tea did he drink per hour during this time?	3/8
4	It takes me four minutes to think of a good math question, and one minute to write it down. How many hours will it take me to complete 240 questions?	20 [hours]
5	Jillian just bought a new lot next to her house and wants to put grass on it. Grass patches come in squares that are two feet on a side. If her lot is a rectangle 26 feet by 28 feet, what is the least number of squares that will cover the entire plot?	182 [squares]
6	The year 2008 is a Leap Year. What fraction of the months in 2008 have a prime number of days?	2/3
7	What is the positive difference between the degree measures of one interior angle of a regular pentagon and one interior angle of a regular quadrilateral?	18 [degrees]
	Extra Problem – Only if Needed	
8	If I roll a fair cubical die and flip a fair coin, what is the probability that I will roll a three on the die and flip tails on the coin? Give your answer as a reduced fraction.	1/12

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Division 1

COLLEGE KNOWLEDGE BOWL ROUND #2

#	Problem	Answer
1	Mel is five feet and ten inches tall. If there are two and one-half centimeters in one inch, how many centimeters tall is Mel?	175 [cm]
2	A sprinkler sprays water two yards in each direction. How many square feet can the sprinkler spray with water if it can make full rotations?	36π [sq feet]
3	What is the product of the fourth prime number and the fifth prime number, given that the first prime number is two?	77
4	Twenty-four passengers are riding a bus. At the first stop, fifty percent of the passengers get off the bus and six passengers get on. At the second stop, two-thirds of the passengers get off and nobody gets on. At the third stop, the number of passengers on the bus is doubled. How many passengers are on the bus after the third stop?	12 [passengers]
5	If ten builders can build a building in thirty days, at this rate how many builders would it take to build three buildings in three days?	300 [builders]
6	Johnny Bravo goes through two bottles of DeLuxe Hair Gel every five days. Each bottle costs fifteen dollars. How many dollars does Johnny spend on hair gel in one year if it is not a Leap Year?	[$] 2190
7	What is the probability that if two dice are rolled, the sum of the top faces is five?	1/9
	Extra Problem – Only if Needed	
8	How many prime numbers are between twenty-five and fifty?	6 [primes]

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Division 1

COLLEGE KNOWLEDGE BOWL ROUND #3

#	Problem	Answer
1	What is the sum of five consecutive integers if the highest of these integers is 2?	0
2	Find the number of square inches in one-third of the area of a square if one-third of the perimeter of the square is twenty inches.	75 [sq in]
3	For her weekly allowance, Shannon receives five quarters, seven dimes, and some number of nickels, the same number each week. If Shannon saves all her allowance, she can save exactly twenty dollars in eight weeks. How many nickels does she get each week?	11 [nickels]
4	Find the sum, in degrees, of all the interior angles of a hexagon.	720 [°]
5	Express as a fraction in standard notation (not scientific notation) the quotient of four times ten to the third power divided by the quantity eight times ten to the fourth power.	1/20
6	Find the range of the following set of numbers: five, seven, four, negative two, zero, nine, six, negative one	11
7	If seven more than my number is seven less than seventy, what is seven less than my number?	49
	Extra Problem – Only if Needed	
8	What is one-third of one-eighth? Give your answer as a reduced fraction.	1/24

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Division 2

COLLEGE KNOWLEDGE BOWL ROUND #1

#	Problem	Answer
1	A police officer can run a mile in eight minutes. The average sixth-grader can run a mile in three-halves of the police officer's time. How many minutes does it take an average sixth-grader to run a mile?	12 [minutes]
2	The product of seven times eight times two is the same as the sum of eighty-nine and what number?	23
3	Danelle the baby is climbing up a flight of fifteen stair steps. Every five minutes, she climbs up four steps, but then slides down three steps. How many minutes will it take for her to climb the entire flight of stair steps?	60 [min]
4	In three weeks, four friends read a total of sixty books. What was the average number of books read per person per week?	5 [books]
5	Hot dogs are sold in packs of eight, while hot dog buns are sold in packs of six. If Jan doesn't want to have any leftover hot dogs or buns, and she can only buy whole packs, what is the least positive number of packs of buns she could buy?	4 [packs]
6	Find the positive square root of the sum of fifty-nine and one hundred ten.	13
7	There are four people in a room, including Frank and Ernie. Each person shakes hands with every other person, except that Frank and Ernie don't shake hands with each other. How many handshakes are there?	5 [handshakes]
	Extra Problem – Only if Needed	
8	What is the product of the first four odd prime numbers?	1155

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Division 2

COLLEGE KNOWLEDGE BOWL ROUND #2

#	Problem	Answer
1	One can of wood stain is able to cover fifty square feet of wood. How many cans are needed to cover a twenty-foot by thirty-foot rectangular deck?	12 [cans]
2	What fraction of ten dollars is seventy-five cents?	3/40
3	All of the 25 members of the Mount Spokane High School Travel Club have visited either New York or Los Angeles. Thirteen members have visited New York, and sixteen members have visited Los Angeles. How many members have visited both New York and Los Angeles?	4 [members]
4	Last week, the sun shone four hours on Monday. For the rest of the week, we had 3 hours of sunshine each day. How many hours did the sun shine last week?	22 [hours]
5	Lisa has a fake dime with two heads. When she tosses this fake dime along with two real dimes, what is the probability that all three coins will land heads up? Give your answer as a fraction.	1/4
6	The median of a set of five integers is four. If the set has a single mode equal to one, find the least possible sum of the set of values.	17
7	Colin spent one-fourth of his money on candy. He then bought a toothbrush for two dollars and toothpaste for one dollar, leaving him with thirty-six dollars. How many dollars did Colin have to start with?	[$] 52
	Extra Problem – Only if Needed	
8	Find the sum of the prime numbers between twenty and forty.	120

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Division 2

COLLEGE KNOWLEDGE BOWL ROUND #3

#	Problem	Answer
1	Kaitlin runs every morning for one week. During this week, she drinks five pints of water per day. The next week, she does not run. She drinks two quarts of water per day. What is the difference between the total number of cups of water she drank the first and second weeks?	14 [cups]
2	How many years are there in seventy-seven centuries plus seventy-seven decades plus seventy-seven years?	8547 [yrs]
3	The width of a rectangle is one-third of its length. The area is twenty-seven square inches. Find the number of inches in the perimeter of the rectangle.	24 [inches]
4	If Andy got 17 out of 20 problems right on his math test, what percent of the problems did he get right?	85 [%]
5	A river flows at three miles per hour. Squidward swims at two miles per hour. How many minutes will it take Squidward to swim one mile downstream in this river?	12 [minutes]
6	Some aliens have two antennae and others have three. If a group of ten aliens has a total of twenty-three antennae, how many aliens in this group have two antennae?	7 [aliens]
7	Subtract the smallest 2-digit prime number from the smallest 3-digit square number.	89
	Extra Problem – Only if Needed	
8	For the number thirty-nine million, eight hundred seven thousand, six hundred forty-eight, Levi adds alternating digits starting from the left while Ryan adds alternating digits starting from the right. Find the positive difference between Levi's sum and Ryan's sum.	1

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6th Grade – March 14, 2008

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	30111		
2	5		
3	4 [sides]		
4	3/5		
5	3 [people]		
6	216		
7	126 [balloons]		
8	pentagon [or 5-gon]		
9	[x=] 10		
10	4 [digits]		
11	21		
12	12		
13	421		
14	60 [ways]		
15	3:38 PM		
16	(8, 4)		
17	False		
18	-1		
19	2 [A's]		
20	225π [sq inches]		

	Answer	1 or 0	1 or 0
21	53		
22	16 [games]		
23	435 [°]		
24	240/7 [mph]		
25	4		
26	[x=] 7		
27	37		
28	150 [°]		
29	877		
30	82		
31	24 [games]		
32	0 [cm]		
33	975		
34	3, 7, or 11 [dimes]		
35	86		
36	4 [students]		
37	185		
38	36 [sq in]		
39	3/25		
40	700 [outfits]		

"Math is Cool" Championships – 2007-08

6th Grade – March 14, 2008

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	C		
2	D		
3	C		
4	A		
5	B		
6	D		
7	A		
8	B		
9	E		

"Math is Cool" Championships – 2007-08

6th Grade – March 14, 2008

School Name_____Team #_____

Proctor Name_____Room #_____Div: _____

Final Score:
KEY

First Score

(out of 20)

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	5		
2	48		
3	[$] 3		
4	312 [cherries]		
5	150		
6	11 [cookies]		
7	25,000 [sheets]		
8	20 [squares]		
9	70 [°]		
10	81/125		

"Math is Cool" Championships -- 2007-08

KEY

6th Grade – March 14, 2008

School:_____Team #_____

Proctor: _____ Room #_____Div _____

PRACTICE RELAY

Answer for person # 1	Answer for person # 2	Answer for person # 3	Answer for person # 4
138	**3**	**52**	**7**
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
0	**7**	**21**	**336 [sq un]**
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
20	**88 [cents]**	**10 [integers]**	**24**
1 or 0	1 or 0	1 or 0	2 or 0