

# "Math is Cool" Championships - 2010-11

Sponsored by:

4th Grade - April 15, 2011

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.*
- *Counting or natural numbers refer to the numbers 1,2,3,4 and so on and do NOT include 0.*
- *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  $\pi$  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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Record all answers on the colored cover sheet.

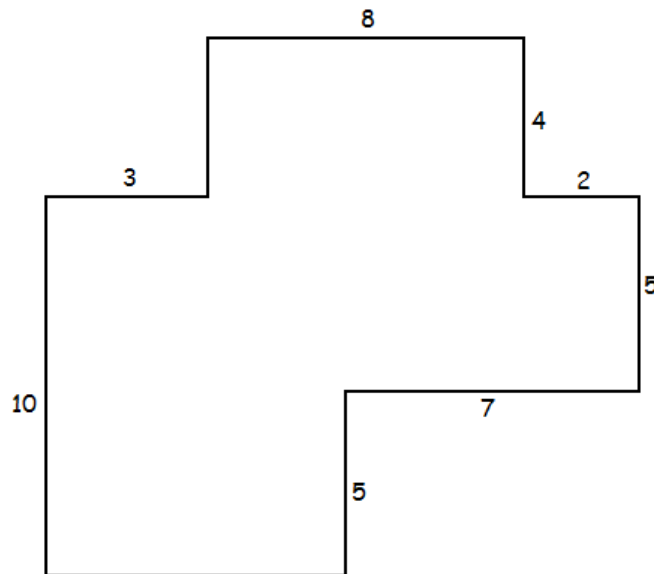
Questions 1-30: 2 points each													
1	Find the next number in this addition pattern: 17, 20, 23, 26, ____												
2	What digit is in the thousands place? 831,429												
3	Which of the three symbols $>$ , $<$ , or $=$ should go between these two numbers? 83,291 ____ 39,812												
4	Find the sum of 14,231 and 5,628.												
5	How many nickels would you need in order to have \$1.35 in nickels?												
6	What is the range of the set of values 14, 38, 97, 13, 22?												
7	Which item is the least expensive? <table border="1"><thead><tr><th colspan="2">Items at Mathco</th></tr><tr><th>Item</th><th>Price</th></tr></thead><tbody><tr><td>Calculator</td><td>\$73.21</td></tr><tr><td>Protractor</td><td>\$8.85</td></tr><tr><td>Compass</td><td>\$9.21</td></tr><tr><td>Triangle</td><td>\$15.21</td></tr></tbody></table>	Items at Mathco		Item	Price	Calculator	\$73.21	Protractor	\$8.85	Compass	\$9.21	Triangle	\$15.21
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8	What is the remainder when 785 is divided by 9?												
9	There are 4 fish tanks on a pet store shelf. Each tank has a different kind of fish (guppies, tetras, neons, betas). There are no guppies or tetras in the first tank. The guppies are not in the third tank. The neons are in the fourth tank. What kind of fish is in the third tank?												
10	Find the difference between 23,234 and 17,985.												
11	What number is 11 more than my number when my number is 5?												
12	The average whitetail deer lives 12 years longer than the average field mouse. If the average whitetail deer lives 14 years, how many years does the average field mouse live?												
13	Biff bought 2 sweaters for \$5.00 apiece and a pair of pants for \$7.00. He paid with a \$20 bill. How much change, in dollars, should he get?												
14	I have three more apples than five dozen apples. How many apples do I have?												

15	When rounding to the nearest thousand, what is the largest counting number that would round to 23,000?
16	Let: A = area of a right triangle with a base of 5 and height of 12 B = area of a square with a side length of 8 C = perimeter of regular hexagon with a side length of 4  Put the values, A, B, C, in order from largest to smallest.
17	What percent of 100 is equal to six percent of 600?
18	What is the sum of the positive factors of 25?
19	There are two buses. Every bus holds five bags. Each bag has three cats. Each cat has nine spots. How many spots are there in all of the buses?
20	What is the number of diagonals that can be drawn in a hexagon?
21	What is $\frac{1}{3}$ of 50% of 420?
22	A bucket contains three green marbles, fifty tan marbles, and seven orange marbles. If I randomly choose a marble, what is the probability of not picking a green marble? Answer as a fraction.
23	What is the maximum number of intersection points between three different circles and a line?
24	What is the greatest common factor of 144 and 204?
25	What is the least common multiple of 42 and 56?
26	A rectangle has an area of 128 square units. Its length is twice its width. What is the number of units in the perimeter of the rectangle?
27	What is 125% of 16?
28	A worm is moving towards an apple at a rate of 2 inches per minute. The apple is 5 yards away. How many minutes will it take the worm to get to the apple?
29	How many multiples of three are between 1 and 50?
30	What is the sum of the multiples of three between 1 and 50?

## Challenge Questions: 3 points each

31

What is the area, in square units, of the following figure? All angles are right.



32

How many distinct ways can the letters in the word TREE be arranged?

33

What is the probability of getting exactly two heads when I flip a fair coin three times? Answer as a fraction.

34

A four-yard by eight-yard rectangular pool has a walkway made of tiles around it. Each tile is a square, two feet by two feet. How many tiles are needed to completely surround the pool (including corners)?

35

There are 18 mathematicians in a zoo. Nine of them are wearing boots and 14 of them are holding glow sticks. If one-sixth of the mathematicians are not wearing boots and not holding glow sticks, how many mathematicians are wearing boots and holding glow sticks?

36

The ratio of angles in a quadrilateral is 2:3:5:2. What is the positive difference, in degrees, between the largest angle and the smallest angle?

37

Five points are placed on a circle. Using three of these points as corners of a triangle, how many triangles can be drawn?

38

Let  $a \# b = \frac{(a+b) \times a}{b}$ . What is  $10 \# 5$ ?

39

A rectangle has a height of six and a length of nine. If the length is decreased by 50% and the height is multiplied by 3, what is the ratio of the area of the new rectangle to the old one?

40

How many pairs of counting numbers  $(m,n)$  are there such that  $3m + 5n = 100$ ?

# "Math is Cool" Championships - 2010-11

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4th Grade - April 15, 2011

Team Multiple Choice Contest

<b>USE THE FOLLOWING INFORMATION TO SOLVE PROBLEMS #1 THROUGH #4.</b> The table shows the price for each type of fish in Richard's fish store.		Item	Price
		Guppy	\$0.50
Clown Fish	\$6.75		
Beta Fish	\$1.25		
Koi	\$10.00		

<b>1</b>	How much does it cost to buy 3 Koi from Richard's fish store? A) \$1.00      B) \$8.00      C) \$30.00      D) \$40.00      E) \$42.00
<b>2</b>	Bertha pays for two clown fish and two guppies with a twenty-dollar bill. How much change does she get back? A) \$3.50      B) \$4.75      C) \$5.00      D) \$5.50      E) \$14.50
<b>3</b>	If ten or more clown fish are bought, a 5% tax is applied to the total. How much do twelve clown fish cost when tax is added? A) \$4.05      B) \$10.25      C) \$44.55      D) \$55.75      E) \$85.05
<b>4</b>	Stacey wants to buy some fish but she is cheap so she wants to buy ten beta fish instead of two clown fish. How much money did she save? A) \$0.00      B) \$0.50      C) \$1.00      D) \$1.50      E) \$2.00
<b>5</b>	What is the least common multiple of 12, 7, and 3? A) 7      B) 12      C) 36      D) 84      E) 252
<b>6</b>	How many squares with a side length of 2 fit inside a rectangle with side lengths of 20 and 30? A) 150      B) 15      C) 50      D) 10      E) 100
<b>7</b>	Alex made cookies for his friends. But when he left the kitchen, Vanilla ate half of them. Then Alex gave one-fourth of the remaining cookies to Stacey. He then gave one-third of the rest to his parents. He only had six cookies left to give to his friends when he got to school! How many cookies did he originally have? A) 24      B) 21      C) 20      D) 18      E) 12

**USE THE FOLLOWING INFORMATION TO SOLVE PROBLEMS #8 THROUGH #10.**

The table shows the record for teams in the baseball league several games into the season.

Team	Win	Lose	Tie
Lions	6	2	2
Bears	2	3	5
Tigers	4	1	1
Cheetahs	0	6	2

**8**

If games that are won are worth 3 points, lost games are worth 0 and tied games are worth 1 point; how many points do the Bears have?

- A) 6                  B) 7                  C) 8                  D) 11                  E) 14

**9**

How many tied games were there total?

- A) 2                  B) 3                  C) 5                  D) 8                  E) 10

**10**

Which team has the highest percentage of winning games?

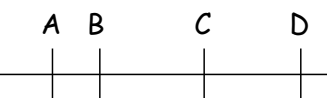
- A) Lions              B) Bears              C) Tigers              D) Cheetahs

# "Math is Cool" Championships - 2010-11

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4th Grade - April 15, 2011

Team Contest

1	How many of the values in the following list are greater than 100? $(30 + 90)$ , $(999 - 99)$ , 10, $(102 - 11)$
2	A Rimrockburger uses half a pound of meat. Jina and Kelly share a Rimrockburger equally. How many OUNCES of meat does Jina get?
3	The corner of Carol's egg carton is squashed, so it holds one egg less than a dozen. Carol takes out $\frac{4}{11}$ of the eggs in this squashed carton. How many eggs remain in the carton?
4	Denali National Park in Alaska was originally two million acres. In 1980, twice that area was added to the park. Write the new number of acres in the area of Denali National Park, using numerals rather than words.
5	Abe and Gabe work in a library. Abe piles books on a table at the rate of 8 books per minute, while Gabe removes books from the table at the rate of 11 books per minute. They both began work at 4 PM, with 150 books on the table. At these rates, at what time will there be 30 books left on the table?
6	Lucy starts with the number 20, then adds either a 7 or a 9 at each addition step. Lucy eventually ended up with a total of 100. How many addition steps did she perform?
7	Mitchell puts 76 blueberries in a pail. Then Jimmy eats 143 blueberries from the pail, leaving 296 blueberries in the pail. How many blueberries were in the pail before Mitchell put any in?
8	The mean or average of a collection of five counting numbers is six. If the smallest number in the collection is two and the median is three, what is the largest possible number in the collection?
9	 <p>Points A, B, C, and D fall along a line in the order shown (drawing not to scale). Segment AB is one-half the length of segment BC. Segment AB is twice the length of segment CD. If the length of segment AC is 12 inches, what is the length in inches of segment BD?</p>
10	Albert is at the county fair. Every time he stops at a booth to buy something, he drops one coin from his pocket and loses it. He started with 8 pennies (P), 7 nickels (N), 12 dimes (D), and 22 quarters (Q). He bought a hot dog for \$2.75, a lemonade for \$1.40, and a ticket to ride the Whirl-a-Gig for \$2.15. He made each purchase at a different booth. Albert had only \$0.28 left after these purchases. Which COINS did he drop? Use letters to give your answer (for example, "3P" or "P, N, D").

# "Math is Cool" Championships - 2010-11

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4th Grade - April 15, 2011

## Relay Contest

**RELAYS** - 5 minutes per relay - 15% of team score

*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>Practice Relay</b>	Answer
Person 1	What is nine divided by three?	3
Person 2	What is TNYWG plus four?	7
Person 3	Take TNYWG and multiply it by 20. What is the sum of the digits?	5
Person 4	What is TNYWG divided by five?	1
	<b>Relay #1</b>	Answer
Person 1	Evaluate: 7 times 8	56
Person 2	What is TNYWG divided by four?	14
Person 3	What is TNYWG multiplied by the chance of getting a head if I flip a fair coin?	7
Person 4	What is the area of a square with side length TNYWG?	49
	<b>Relay #2</b>	Answer
Person 1	What is $\frac{1}{4} + \frac{3}{4}$ ?	1
Person 2	Evaluate three times TNYWG plus 2.	5
Person 3	What is the remainder when 47 is divided by TNYWG?	2
Person 4	What is the chance of rolling TNYWG or less with a fair six-sided die? Answer as a fraction.	1/3 or 2/6



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Final Score:

**KEY**

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

Proctor Name \_\_\_\_\_ Room # \_\_\_\_\_ Division: \_\_\_\_\_

## Mental Math Contest

**MENTAL MATH** - 30 seconds per question - 25% of team score

<b>PERSON 1 NAME:</b>		<b>1 or 0</b>
1.1	What is the remainder when fifty is divided by six?	2
1.2	My favorite number is two more than two times five. What is my favorite number?	12
1.3	Joe makes a square using 20 inches of string. What is the area of the square, in square inches?	25 [sq in]
1.4	What is the probability of getting two heads on two flips of a fair coin? Answer as a fraction.	1/4
<b>PERSON 2 NAME:</b>		
2.1	If I have 2 red marbles and 3 blue marbles and select one at random, what is the probability of getting a red marble? Answer as a fraction.	2/5
2.2	What is the smallest prime number larger than 20?	23
2.3	Adam has twice as many apples as Barbara, who has two more than Carl. If Carl has three apples, how many does Adam have?	10 [apples]
2.4	What is the perimeter of a triangle with side lengths of 3, 7 and 11?	21 [un]
<b>PERSON 3 NAME:</b>		
3.1	How many sides does a hexagon have?	6 [sides]
3.2	What is the average of the numbers 4, 7, and 10?	7
3.3	What is the sum of the prime numbers between 1 and 10?	17
3.4	David is three years younger than Amanda. In three years, Amanda will be ten. How old is David now, in years?	4 [years]
<b>PERSON 4 NAME:</b>		
4.1	What is the next number in the sequence, one, five, nine, and so on?	13
4.2	Two of the angles in a triangle measure 40 and 60 degrees. What is the measure of the third angle, in degrees?	80 [degrees]
4.3	If the average of three numbers is 6, and two of the numbers are 4 and 9, what is the third number?	5
4.4	What is the sum of 2 plus 4 plus 6 plus 8 plus 10?	30

# "Math is Cool" Championships - 2010-11

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## COLLEGE KNOWLEDGE BOWL ROUND #1 - SET 1

#	Problem	Answer
1	There are four cats sitting in a basket. If one cat gets up and walks away, how many cats are still in the basket?	3 [cats]
2	Hide and Seek are sitting on a park bench. Hide weighs four and a half kilograms and Seek weighs 5.3 kilograms. How much heavier is Seek than Hide, in kilograms? Express your answer as a decimal.	0.8 [kilograms] Could answer "point 8" or "eight-tenths".
3	For every three hours that my cat Vanilla is outside, she runs two miles. If she is outside twelve hours today, how many miles will she run?	8 [miles]
4	Willow has five kittens in her litter. Three are brown tabbies, one is grey, and one is orange. What percentage of her litter is not grey?	80 [%]
5	Stacey wants to evenly distribute six thousand sixty cat treats evenly among her six cats. How many treats does each cat receive?	1010 [treats]
6	Bertha's cat Joe chases cars but only the red ones. If eight cars drive down the street and six are red, what percentage of cars going down the street will Joe chase?	75 [%]
7	Stacey's test scores in math were: 78, 90, 83, 96 and 88. What was her median test score?	88
8	At the pet store there are four grey cats for every three orange cats. If the total number of grey cats and orange cats is twenty-one, how many orange cats are there?	9 [orange cats]
9	Simba weighs five pounds more than Sasha. If they both gain two pounds, Simba will weigh twice as much as Sasha. How many pounds does Sasha weigh now?	3 [pounds]
10	Harry's refrigerator is running. If it started running at six PM at a constant speed of 30 miles an hour and Harry started chasing it at ten PM at a constant speed of 60 miles an hour, at what time will Harry finally catch his refrigerator?	2 AM

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## COLLEGE KNOWLEDGE BOWL ROUND #2 - SET 2

#	Problem	Answer
1	What is six times seven?	42
2	What is one plus two plus three plus four plus five plus six plus three hundred?	321
3	What is two-thirds minus one-half?	1/6
4	One bus can transport 43 students. How many buses will it take to transport 301 students?	7 [buses]
5	What is the area divided by the perimeter for a square of side length four inches?	1 [inch]
6	What is the probability of drawing a king out of a standard deck of cards? Answer as a fraction.	1/13 or 4/52
7	A six by eight pool is bordered by a thin edge. What is the total length of the edge?	28 [units]
8	Three times my number minus thirteen equals forty-four. What is my number?	19
9	Frank traveled for 3 hours at 60 miles per hour, and then for 2 hours at 40 miles per hour. How many total miles did he travel?	260 [miles]
10	Let X equal the number of numbers between one and twenty five inclusive with an odd amount number of positive factors, Y equal the area of a square with a side length of seven, and Z equal the probability of drawing a heart from a standard deck of cards. What is X plus Y minus Z? Answer as a mixed number.	53 3/4

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## COLLEGE KNOWLEDGE BOWL ROUND #3 - SET 3

#	Problem	Answer
1	Willis is throwing darts at a wall. If he has thrown twice as many darts as Tom, who has thrown seven darts, how many darts has Willis thrown?	14 [darts]
2	Jared the jogger uses two pair of shoes for every one hundred miles he runs. How many pairs will he use if he runs seven hundred fifty miles?	15 [pairs]
3	Ted the lumberjack is eating pancakes. It takes him twelve minutes to eat a pancake. If it took him two hours and twenty-four minutes to eat his pancakes, how many pancakes did Ted eat?	12 [pancakes]
4	Colby's car gets 30 miles per gallon of gas. He is making a trip that is 390 miles long. How many gallons of gas will he need to complete the trip?	13 [gallons]
5	If angle A is 25 degrees, and angle B is supplementary to it, what is the measure of angle B, in degrees? [To be supplementary, the angles must add to 180 degrees.]	155 [degrees]
6	Shirley, Charlie, and Charlotte are sitting on a tree branch. Shirley is not sitting next to Charlotte and Charlie is to the right of Shirley. Who is in the middle position?	Charlie
7	Convert the improper fraction twenty-three fourths to a mixed number.	5 and 3/4
8	A library has 1000 books numbered 1 through 1000. Will checked out all the books between 14 and 34 that have a book number that is divisible by 3. How many books did he check out?	7 [books]
9	What is the unit's digit of the product of all prime numbers that are less than thirty?	0
10	Ivan the Terrible Lumberjack has a favorite number. If five is added to the number and then that sum multiplied by three, the result is 48. What is Ivan's favorite number?	11

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## COLLEGE KNOWLEDGE BOWL ROUND #4 - SET 4

#	Problem	Answer
1	Find the sum of the numerator and denominator of seven-tenths.	17
2	Calculated in the proper order without parentheses, what is one plus two times four minus five?	4
3	Rocky has a rectangular litter box, which has a base of nine by twelve inches. What is the area of the base of her litter box, in square inches?	108 [sq. inches]
4	What is the sum of all the counting numbers that divide into eight equally?	15
5	If the perimeter of a rectangle is thirty-eight units and the length is fourteen units, what is the number of units in the width?	5 [units]
6	A library has 1000 books numbered 1 through 1000. Christian checked out all the books numbered 13 through 30. How many books did he check out?	18 [books]
7	What is the smallest counting number that is divisible by one, two, three, four, five and six?	60
8	One gallon of paint will cover 75 square feet. How many gallons of paint will it take to cover a rectangle that is 15 feet by 25 feet?	5 [gallons]
9	If $x$ equals 3 and $y$ equals 4, what is $x$ times $y$ plus $x$ minus $y$ ?	11
10	Mary has two fair six-sided dice with the numbers one through six on each of them. If both dice are rolled, what is the probability that both dice show even numbers on top? Answer as a fraction.	$\frac{1}{4}$

# "Math is Cool" Championships - 2010-11

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## COLLEGE KNOWLEDGE BOWL ROUND #5 - SET 5

#	Problem	Answer
1	Bach is eating chickens. If he ate one chicken and there are twelve left, how many chickens were there to begin with?	13 [chickens]
2	Percy Grainger is walking on the shore listing the counting numbers that divide into thirty-two equally. What is the range of the numbers he lists?	31
3	What is one-half of one-third of one hundred fifty?	25
4	Mozart's triangular metronome has side lengths of ten and twelve units. If the third side is also a counting number, what is the maximum it could be?	21 [units]
5	Beethoven charges eight dollars for each private lesson and fifteen dollars to drive to a school. If Mrs. Haydn has seventy-one dollars to spend, how many of her students can get private lessons?	7 [students]
6	Chaminade is making some lemonade. She is out by her stand for twenty hours and makes a total of ninety dollars. What was the average amount of money she made per hour, in dollars?	[\$] 4.50
7	Vivaldi went on a weeklong fishing trip. He caught 3 fish per day for four days and 7 fish per day for 3 days. How many total fish did Bill catch??	33 [fish]
8	Chopin performed at eight-five concerts. At twenty-four of them royalty was present and at fifty of them, Chopin had family members present. If both royalty and family attended ten of his concerts, how many concerts had neither royalty nor family?	21 [concerts]
9	Telemann wrote many operas. In his first year he wrote one opera and another opera in his second year. After that, each year he wrote as many operas as in the two previous years combined. How many operas did he write in his sixth year?	8 [operas]
10	Bob and Mary each flip a fair coin. What is the chance that one person gets a head and the other gets a tail? Answer as a fraction.	1/2 or 2/4

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## COLLEGE KNOWLEDGE BOWL ROUND #6 - SET 6

#	Problem	Answer
1	What is the product of eleven and one point one? Answer as a decimal.	12.1
2	What is one-third of twenty seven?	9
3	What is the remainder when two thousand four hundred twenty three is divided by seven?	1
4	How many minutes are there between eleven-twenty AM and one-thirty PM?	130 [minutes]
5	Tatum and Taylor's code uses a letter of the alphabet followed by a digit. How many possible codes are there in their system?	260 [codes]
6	It takes the wool of two sheep and 5 pounds of cotton to make one coat. Sally has the wool of 90 sheep and 100 pounds of cotton. What is the largest number of coats she can make?	20 [coats]
7	A triangle has two angles that measure fifty-five degrees each. What is the measure of the third angle in degrees?	70 [degrees]
8	What is the sum of the even numbers between 1 and 21?	110
9	Gregg numbers all of his cows with a prime number, starting with the lowest prime number. He has 6 cows. What is the sum of all the digits that he used to number his cows?	23
10	What is the sum of X and Y in the sequence: one, three, six, ten, fifteen, X, Y?	49

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## COLLEGE KNOWLEDGE BOWL ROUND - EXTRA

#	Problem	Answer
1	What is the smallest three-digit prime number?	101
2	Find the quotient of zero point four eight divided by three. Answer as a decimal.	0.16 OR point one six OR sixteen hundredths
3	Round to the nearest hundred: one hundred fifty-seven.	200

Extra



# "Math is Cool" Championships - 2010-11

April 15, 2011

Final Score: 1-15

Final Score: 16-30

Final Score: 31-40

**KEY**

**KEY**

**KEY**

**STUDENT NAME:** \_\_\_\_\_ **School Name:** \_\_\_\_\_

**Proctor Name:** \_\_\_\_\_ **Team #:** \_\_\_\_\_ **Room #:** \_\_\_\_\_

## 4<sup>th</sup> Grade Individual Contest - Score Sheet

**DO NOT WRITE IN SHADED REGIONS**

	Answer	1 or 0	1 or 0
1	29		
2	1		
3	>		
4	19,859		
5	27 [nickels]		
6	84		
7	protractor		
8	2		
9	tetras		
10	5249		
11	16		
12	2 [years]		
13	[\$] 3 or 3.00		
14	63 [apples]		
15	23,499		
<b>1-15 TOTAL:</b>			

	Answer	1 or 0	1 or 0
16	B, A, C		
17	36 [%]		
18	31		
19	270 [spots]		
20	9 [diagonals]		
21	70		
22	19/20 [or equiv]		
23	12 [points]		
24	12		
25	168		
26	48 [units]		
27	20		
28	90 [min]		
29	16		
30	408		
<b>16-30 TOTAL:</b>			

	Answer	1 or 0	1 or 0
31	127 [sq units]		
32	12 [ways]		
33	3/8		
34	40 [tiles]		
35	8 [math.]		
36	90 [deg]		
37	10 [triangles]		
38	30		
39	3 : 2 or 3/2 [or equivalent]		
40	6 [pairs]		
<b>31-40 TOTAL:</b>			

4<sup>th</sup> Grade

# "Math is Cool" Championships - 2010-11

4th Grade - April 15, 2011

Final Score:  
**KEY**

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

First Score  
(out of 20)

Proctor Name \_\_\_\_\_ Room # \_\_\_\_\_ Division: \_\_\_\_\_

## Team Multiple Choice Contest - 15 minutes - 20% of team score

*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	E		
4	C		
5	D		
6	A		
7	A		
8	D		
9	C		
10	C		

# "Math is Cool" Championships - 2010-11

4th Grade - April 15, 2011

Final Score:  
**KEY**

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

First Score  
(out of 10)

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

## Team Contest - Score Sheet - 15 minutes - 30% of team score

*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 1 or 0. Record all answers on the colored answer sheet.*

### DO NOT WRITE IN SHADED REGIONS

	Answer	1 or 0	1 or 0
1	2 [values]		
2	4 [ounces]		
3	7 [eggs]		
4	6,000,000 [acres]		
5	4:40 PM		
6	10 [steps]		
7	363 [blueberries]		
8	20		
9	10 [inches]		
10	Q, Q, N [or 2Q, 1N] [any order] [55¢ is not correct]		

# "Math is Cool" Championships -- 2010-11

**KEY**

4th Grade - April 15, 2011

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

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

## PRACTICE RELAY

Answer for person # 1	Answer for person # 2	Answer for person # 3	Answer for person # 4
<b>3</b>	<b>7</b>	<b>5</b>	<b>1</b>
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
<b>56</b>	<b>14</b>	<b>7</b>	<b>49</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>1</b>	<b>5</b>	<b>2</b>	<b>1/3 or 2/6</b>
1 or 0	1 or 0	1 or 0	2 or 0