

“Math is Cool” Championships – 2013-14

Sponsored by:

April 18, 2014

4th Grade Mental Math Contest

Follow along as your proctor reads these instructions to you. Your Mental Math score sheet is on the back.

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 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.*

Mental Math – 30 sec per question

8 problems read orally to everyone - Approximately 8% of Individual Score - 25% of team score

*You may NOT be seated next to anyone from your school. If you are MOVE NOW to avoid being disqualified! When it is time to begin, the proctor 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 after completion of 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 will be asked the same eight questions. Individual scores used to determine individual placing will be determined by the sum of the Mental Math score and the Individual Test score for each individual. In addition, the top three Mental Math scores from one team will be totaled and doubled and will contribute to 25% of the team score.*

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4th Grade – April 18, 2014
Mental Math Contest

Mental Math – 30 sec per question

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#	Problem
1	How many sides does a quadrilateral have?
2	What is the sum of eighteen and thirty-seven?
3	Express the decimal “zero point two” as a reduced fraction.
4	Mrs. Claus is putting up lights. If she has 5 strings of lights with 10 bulbs each, how many light bulbs does Mrs. Claus have?
5	How many cents is 5 nickels plus 4 dimes plus 3 quarters?
6	What is 30 percent of 50?
7	What number is twenty-three less than half of fifteen-hundred?
8	When three coins are flipped, what is the probability that at exactly two of them lands heads up? Answer as a common fraction.

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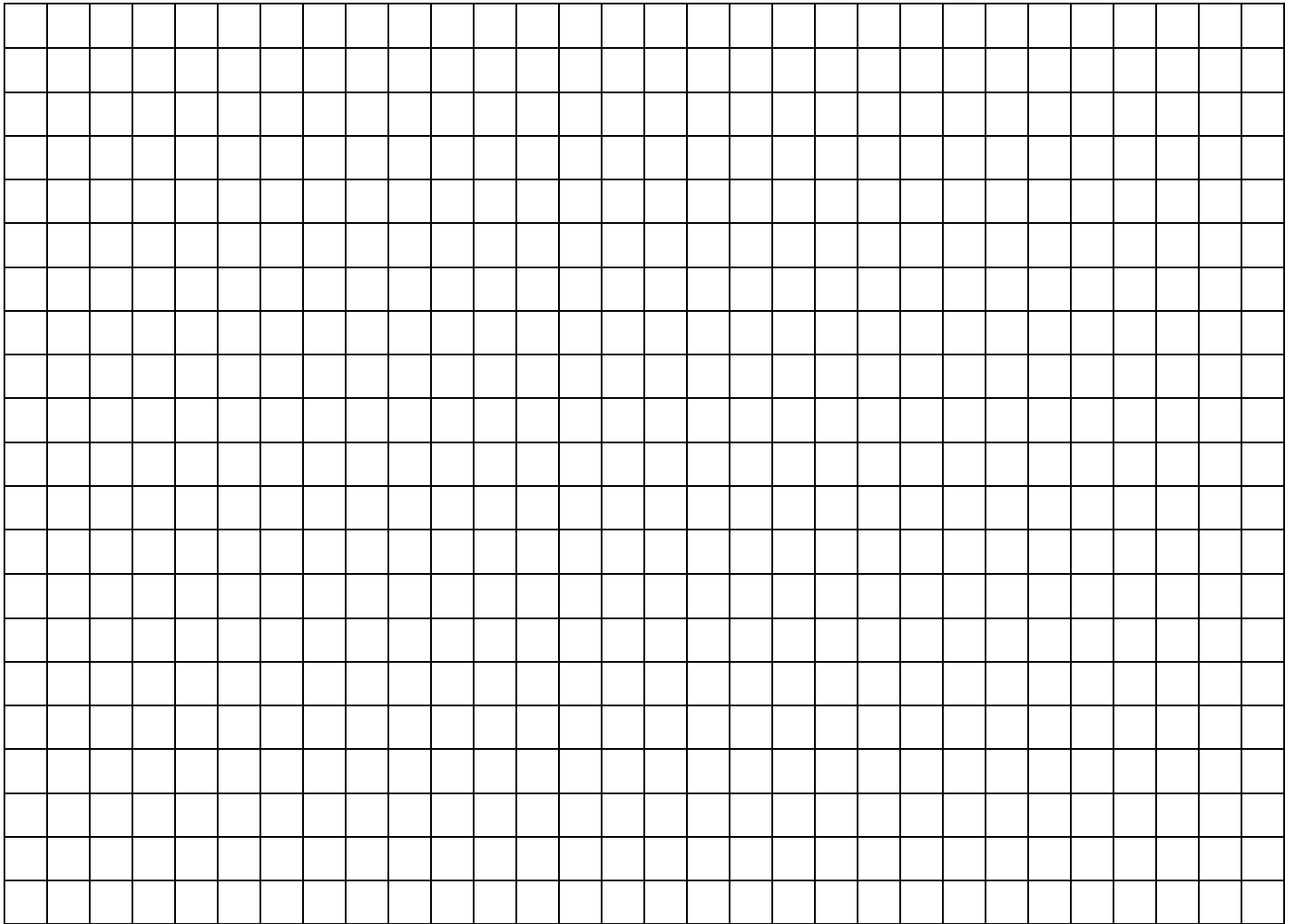
April 18, 2014

Individual Contest – 4th Grade

Tear this cover sheet and scratch paper off and fill out the top of the colored answer sheet prior to the start of the test. The graph below is for your use, if needed.

INDIVIDUAL TEST - 35 minutes

You may NOT be seated next to anyone from your school. If you are MOVE NOW to avoid being disqualified! 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. The raw score will be 2 points for correct answers to problems 1-30 and 3 points for 31-40. Record your answers on the score sheet. No talking during the test. You will be given a 5 minute time warning.



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4th Grade – April 18, 2014

Individual Contest

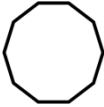
Record all answers on the colored cover sheet.

Questions 1-30: 2 points each	
1	What is the smallest odd whole number greater than 15?
2	Evaluate: $2 + 3 \times 4 - 5$
3	What digit is in the thousandths place in the number 15487.6329 ?
4	How many five-cent stamps are there in a dozen?
5	Lucy takes a busy elevator from the ground floor up to her office. She was busy reading the newspaper and when she got off on the 23 rd floor, realized that she had overshot her floor by six floors. On what floor is Lucy's office?
6	What is the product of 11 and 12?
7	Pencils cost 10¢ and pens cost 70¢. If I need to buy 13 pencils and I have \$5, how many pens can I buy?
8	A palindrome is a number that reads the same forward as backwards. What is the next whole number palindrome after the number 123?
9	To the nearest hundredth, what is 20% of 0.1?
10	What is the remainder when eighty-seven is divided by six?
11	A trapezoid has an area of 15 square centimeters and a height of 3 cm. What is the width of a rectangle having the same area and height as the trapezoid?
12	Edward ate one third of a pizza and Aidan ate one sixth of a pizza. As a common fraction, how much of the whole pizza remains?
13	Reduce the following fraction to simplest terms: $\frac{256}{16}$
14	Syd is counting aloud backwards from 60 by sevens, saying 60, 53,...and so on. What is the last positive number he says?
15	What is the least common multiple of 8 and 18?
16	What is the median of the following set of numbers? 0, 15, 16, 17, 21, 72, 51, 78, -3, 13, 100, 19
17	A shuttle van takes passengers between terminals at LAX Airport. There are 13 passengers when the shuttle leaves Terminal 1. At Terminal 2, four passengers get off and two get on the shuttle. At Terminal 3, eight passengers get off. At Terminal 4, five passengers get on. How many passengers are on the shuttle as it proceeds from Terminal 4 to Terminal 5?

18	Convert the decimal value $0.\overline{6}$ to a fraction.
19	Five-foot three-inch tall Christina has lovely black hair that hangs down 21 inches. Unfortunately she waded gently out to the four-foot five-inch depth of a swimming pool that was excessively chlorinated, bleaching the portion of her hair that got wet. How many inches of her hair were bleached?
20	Michaela was doing a problem on her calculator, but she made a mistake and multiplied by 3 instead of dividing by 3. Her incorrect answer was 153. What is the correct answer?
21	What is the range of the following set of numbers? 0, 15, 16, 17, 21, 72, 51, 78, -3, 13, 100, 19
22	Betty scored 85% on her first test and 83% on her second test. What is the best average she can have after taking two more tests?
23	Harry Potter gives the Weasley twins 1000 galleons to start a joke shop. The twins spend 500 galleons on the joke shop, 273 galleons on new broomsticks, 177 galleons on a golden cauldron, and 50 galleons on a new set of dress robes for Ron. What percentage of their original gift did they spend on Ron's dress robes?
24	In 2014, the longest day of the year for a Seattle resident is on June 21st. Given that today is Friday, April 18th, how many days are there until the longest day of the year?
25	When you multiply my number by 6 and subtract 9 from this product, you get 33. What is my number?
26	If the sum of two numbers is forty-nine and their difference is twenty-five, what is the larger number?
27	Evaluate: $\left(\frac{12}{35}\right) \div \left(\frac{4}{5}\right)$
28	Twenty-three Japanese one-yen coins weigh as much as ten euro-cent coins. Twenty-five euro-cent coins weigh as much as twenty-three U.S. pennies. How many Japanese one-yen coins weigh as much as four U.S. pennies?
29	Teddy closes his eyes and withdraws a single marble from a bag containing five blue and six green marbles. What is the probability that the marble drawn is blue?
30	Swetha has 38 pairs of shoes that are either boots or sandals. She has 8 more boots than sandals. How many pairs of boots does she have?

Challenge Questions: 3 points each

31	What is the sum of the number of interior angles in a heptagon, the number of inches in two feet, and the number of faces on a cube?
32	The term "yotta" is the metric system prefix meaning 1000^8 . For example, there are 1000^8 meters in a yottameter. When written out, how many zeros are in the number of meters in a yottameter?

33	How many diagonals can be drawn in a convex decagon?	
34	Belle is preparing three dishes for a meal. Each dish takes twice as long as the previous dish to prepare. If the last dish took her 40 minutes to prepare, how many minutes total did she spend preparing the meal?	
35	Eleven elephants eat eight ears of corn, in six seconds. How many ears of corn will 132 elephants eat in a minute?	
36	Which whole number in the range of 55 through 65, inclusive, has the smallest sum of its positive factors?	
37	A Mathphone 5-5 costs \$499 (the geometrical positioning feature and direct line to Dr. Math are totally worth it, though). To the nearest cent, what is the total cost of the phone after tax, if sales tax is 7 % ?	
38	In the math problem at right, each instance of a particular letter represents the same digit (0-9) and different letters represent different digits. What is the value of the three-digit whole number ABC?	$\begin{array}{r} AC4 \\ + \underline{ABB} \\ B8C \end{array}$
39	At Superstars School, 12 people play soccer, 15 play football, 18 play basketball, 5 play both soccer and football, 8 play both football and basketball, 7 play both basketball and soccer, 4 play all three, and 166 don't play any sports. How many people go to Superstars School?	
40	Each boy has two pet dogs. Each girl has three pet cats. When a group of children and their pets all get together, there are 58 heads, and 198 legs. How many boys are there in the group?	

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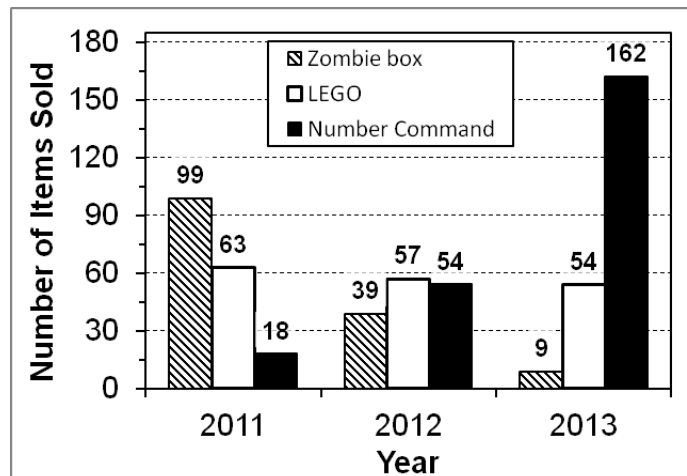
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4th Grade – April 18, 2014

Team Multiple Choice Contest

USE THE FOLLOWING INFORMATION TO SOLVE PROBLEMS #1 THROUGH #4.

The Toybarn store sells the Zombie box game console for \$210, large LEGO sets for \$100 each, and the exciting new Number Command game for \$25. The store manager plotted the number of items for each toy that were sold in the past three years, as shown in the column chart. The “annual sales” for each toy is determined as the number of items sold times the cost of a single item to give the total dollar amount for the sale of all of those items.

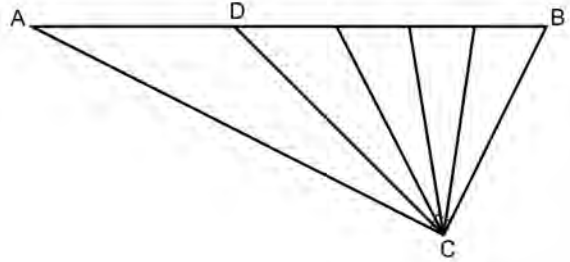


1	In 2011, how many more Zombie box game consoles were sold than Number Command games? A) 81 B) 45 C) 36 D) 15 E) Answer Not Given
2	For every hour spent playing on the Zombie box game console, a student forgets 7 math facts. In contrast, for every 20 minutes spent playing Number Command, a student learns 4 new math facts. If Albert spends 40 minutes playing Number Command and Quinn spends five hours playing on the Zombie box, by how many math facts will their knowledge differ if they both start out knowing 200 math facts? A) 11 B) 27 C) 41 D) 265 E) Answer Not Given
3	What is the positive difference between the annual sales for the large LEGO sets and the annual sales of the Number Command game in 2013? A) \$ 1150 B) \$ 1350 C) \$ 1600 D) \$ 2700 E) Answer Not Given
4	Given that Andrey shopped at Toybarn in 2011 and he randomly purchased one of these three toys, what is the probability (as a reduced fraction) that he purchased a Zombie box game console? A) 9/16 B) 11/21 C) 7/20 D) 11/20 E) Answer Not Given

Continued on Back Side

USE THE FOLLOWING FIGURE TO SOLVE PROBLEMS #5 AND #6.

The figure at right shows right triangle ABC , with angle C being 90 degrees, that has been divided with interior lines going from vertex C to points on line AB .



5	The interior lines in triangle ABC divide angle C equally. What is the degree measure of angle ACD that is created by interior line CD and side AC ? A) 12° B) 15° C) 18° D) 24° E) Answer Not Given
6	How many triangles of any size are there in the figure? A) 17 B) 15 C) 6 D) 5 E) Answer Not Given

USE THE FOLLOWING INFORMATION TO SOLVE PROBLEMS #7 THROUGH #10.

The four members of the Mount Rainier Elementary math team won a spot at the Math is Cool Masters contest. There are two boys (Andy and Bob) and two girls (Carol and Debbie) on the team.

7	For the Mental Math contest, Andy scored 5, Bob scored 7, and Carol scored 8. If the team had an average score of 6, what was Debbie's score? A) 4 B) 5 C) 6 D) 7 E) Answer Not Given
8	The ten questions on this Multiple Choice test are scored as follows: 2 points for a correct answer, 0 for a blank answer, and -1 for a wrong answer. What is the difference between the highest score possible and the lowest score possible? A) 10 B) 20 C) 25 D) 30 E) Answer Not Given
9	On the Individual test, a boy did not score the highest on the team, and Bob scored 2 points higher than Carol but scored 5 points lower than Andy. Who was in third place on the team? A) Andy B) Bob C) Carol D) Debbie
10	How many ways can the four students arrange themselves as Persons #1, #2, #3, and #4 for the Relay test? A) 4 B) 16 C) 24 D) 256 E) Answer Not Given

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4th Grade – April 18, 2014

Team Contest

1	If Katniss shoots 3 arrows every second, how many arrows does she shoot in one minute?
2	Evaluate: $75^2 - 25^2$
3	Lisa pays for an item costing 45 dollars with a 50-dollar bill. If she gets her change completely in quarters, how many quarters will she get?
4	What is the probability of getting 7 heads in a row when 7 fair coins are flipped?
5	Six schools are competing in Division II at the Math Is Cool Championships. Given that there are no ties, in how many ways can trophies for 1 st and 2 nd place schools be awarded?
6	Valarie is drawing individual hexagons and pentagons (i.e., not connected to each other) in her notebook. If she draws a total of 38 sides, how many pentagons did she draw?
7	How many positive two-digit counting numbers have a one's place digit that is larger than their tens digit?
8	You can find the product of the digits of a number by multiplying the digits. For example, the digits of the number 129 have a product of 18 (i.e., $1 \times 2 \times 9$) when multiplied together. How many OTHER three digit numbers have a product of 18 when the digits are multiplied together?
9	Amy, Bob, and Carl each have a different favorite food and favorite color. We know that the person who likes Fudge also likes Green, both people who don't like Eggs also both don't like Orange, Amy doesn't like Indigo, Carl doesn't like Eggs, and Bob likes Doughnuts. What are Amy's favorite food and color?
10	A small pamphlet is made by folding a stack of papers in half and stapling them along the fold. Before the folding, the bottom sheet of paper in the stack has pages 1 and 24 on the back side and pages 2 and 23 on the top side. What is the sum of the page numbers on both sides of the sheet of paper that was on the top of the stack?

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4th Grade – April 18, 2014

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!*

	Practice Relay	Answer
Person 1	What is $1 + 1$?	2
Person 2	What is the value of TNYWG plus itself?	4
Person 3	Take TNYWG and subtract it from 64.	60
Person 4	What is TNYWG divided by 10 ?	6
	Relay #1	Answer
Person 1	How many faces does a cube have?	6 [faces]
Person 2	Convert TNYWG feet to inches.	72 [inches]
Person 3	What is the remainder when TNYWG is divided by 13?	7
Person 4	Add TNYWG to the smallest prime number larger than the result of $3 \times \text{TNYWG}$.	30
	Relay #2	Answer
Person 1	What is the perimeter, in inches, of an equilateral triangle with side length 6 inches?	18 [inches]
Person 2	Take TNYWG and add it to the average of the counting numbers from 1 through 5.	21
Person 3	Add TNYWG to the number of days in February in this year.	49
Person 4	There are TNYWG orange candies, 19 blue candies, and 37 yellow candies in a bag. If Ryan picks one candy at random from the bag, what is the probability that the candy is orange? Answer as a reduced fraction.	$\frac{7}{15}$

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COLLEGE KNOWLEDGE BOWL ROUND #1 – SET 1

#	Problem	Answer
1	What day of the week will it be twelve days after Thursday?	Tuesday
2	A "baker's dozen" is one more than a dozen. Jan bought two baker's dozens of cinnamon rolls. How many cinnamon rolls did she buy?	26 [cinnamon rolls]
3	What is the sum of 1 plus 2 plus 3 plus 4 plus 5?	15
4	What is the remainder when you divide 777 by 2?	1
5	The area of a rectangle is 72 square feet. If one side is 8 feet long, find the length of the other side, in feet.	9 [feet]
6	Mark left the library at 4:32 PM after spending 2 hours and 7 minutes there. At what time did he arrive at the library?	2:25 PM
7	Amy can answer any mental math question in 5 seconds. How many mental math questions can Amy answer in one minute?	12 [questions]
8	How many inches are in 2 yards and 2 feet?	96
9	What is 29 times 21?	609
10	What is the probability of rolling either a one or a twenty on a fair twenty-sided die? Answer as a reduced fraction.	1/10

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COLLEGE KNOWLEDGE BOWL ROUND #2 – SET 2

#	Problem	Answer
1	Katy can only carry 2 pounds of elephant food at a time. If she needs thirty-four pounds of food to feed her elephant, how many trips must she make to feed her elephant?	17 [trips]
2	How many different ways can you arrange the letters in the word MATH?	24 [ways]
3	How many milligrams are the same as nine grams?	9000 [milligrams]
4	Max's storybook is 48 pages long and has 12 stories in it. On average, how many pages long is each story?	4 [pages]
5	Find the remainder when 2014 is divided by 7.	5
6	What is the positive difference between 61 and 39?	22
7	Mario runs at a constant speed of 10 miles per hour. How many MINUTES will it take him to run 25 miles?	150 [minutes]
8	A machine makes a widget every 6 seconds. How many widgets will it make in 6 minutes?	60 [widgets]
9	There are 13 light bulbs in your room, and you know that one has definitely burned out. If you replace one bulb at random, what is the probability that you choose the correct one?	1/13 (or "one-thirteenth" or "one over 13")
10	A bag has 3 red marbles, 4 blue marbles, and 1 green marble. How many marbles must be drawn to ensure you get one of each color?	8 [marbles]

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4th Grade – April 18, 2014

COLLEGE KNOWLEDGE BOWL ROUND #3 – SET 3

#	Problem	Answer
1	What number subtracted from 25 gives a result of 18?	7
2	If Callum can stack 6 blocks in 15 seconds, how long would it take for him to stack 10 blocks?	25 [seconds]
3	What is the perimeter in inches of a square with side length 6 inches?	24 [inches]
4	What is the next term of the sequence: 3, 6, 12, 24, ...?	48
5	If a reindeer can run at 6 miles per hour, how many hours will it take a reindeer to run 36 miles?	6 [hours]
6	Five people all shake hands with one another. How many handshakes happen in total?	10 [handshakes]
7	What is the greatest common factor of 32 and 56?	8
8	If six chickens can lay fifteen eggs in ten days, how many eggs would twelve chickens lay in five days?	15 [eggs]
9	On the FriendFarm site, Zack has 15 friends more than Zuri, and Zuri has 3 more friends than Zed. How many friends does Zed have, if Zack has 60 friends?	42 [friends]
10	12 Iguanas are equivalent to 20 Hyenas, and 32 Hyenas are equivalent to 18 Gorillas. How many Iguanas would be equivalent to 120 Gorillas?	128 [iguanas]

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COLLEGE KNOWLEDGE BOWL ROUND #4 – SET 4

#	Problem	Answer
1	A ream of paper has 500 sheets. A full box holds 5 reams. If half of the sheets are missing, how many sheets are there?	1250 [sheets]
2	Find the median of the following data set: 1, 5, 10, 4, and 2	4
3	If Samantha has 32 pencils after Tom has given her 7 pencils, how many pencils did she originally have?	25 [pencils]
4	How many positive factors does the number 12 have?	6 [factors]
5	Minju is planning to buy packs of stickers. How many stickers will she have if she buys 21 packs and each pack has 8 stickers?	168 [stickers]
6	What is the 25th perfect square greater than zero?	625
7	There are 15 fish in the Mathville central pond. After a fisherman catches three of the fish, what percentage of the original stock of fish remain?	80 [percent]
8	A circular pizza is sliced three times. What is the largest possible number of slices formed?	7 [slices]
9	Which of the following is the largest value: four-sevenths, twenty-seven over forty-one, or zero point six?	twenty-seven forty-firsts (or 27 over 41)
10	If a Stirbucks store sells seven hot chocolates per hour from noon to midnight on Christmas Eve, how many hot chocolates did Stirbucks sell?	84 [hot chocolates]

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4th Grade – April 18, 2014

COLLEGE KNOWLEDGE BOWL ROUND #5 – SET 5

#	Problem	Answer
1	Julia sold 78 bags of popcorn in the first half of the girls' varsity basketball game. In the second half Dan sold 129 bags of popcorn. Combined, how many bags of popcorn did Julia and Dan sell?	207 [bags]
2	What is the largest positive factor of sixteen?	16
3	If there are 35 houses in Whoville and four Whos live in each house, how many Whos live in Whoville?	140 [Whos]
4	Chloe has 550 dollars and decides to give away exactly 30 dollars every day. For how many days can she do this before she doesn't have enough money?	18 [days]
5	If George is five feet four inches tall, how many inches tall is George?	64 [inches]
6	What is the remainder when one thousand, one hundred eleven is divided by 3?	1
7	I have \$100. I give Tom 40% of my money. I then give Nathan 50% of the remaining money. How much money am I left with?	30 [dollars]
8	What is the degree measure of one interior angle of an equilateral triangle?	60 [degrees]
9	What is the 9th smallest positive prime number?	23
10	What is the product of: 3, -6, -3, and -1?	-54

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COLLEGE KNOWLEDGE BOWL ROUND #6 – SET 6

#	Problem	Answer
1	Find the sum of the two smallest three-digit odd numbers.	204
2	How many quarts are in three and one half gallons?	14 [quarts]
3	There are 54 boxes of brownies. If there are 13 brownies in each box, how many brownies are there all together?	702 [brownies]
4	What is the value of six divided by twice the value of one plus two?	1
5	How many times does the digit '9' occur in the counting numbers between 1 and 100?	20 [times]
6	Farmer Frank has a herd of 16 cows as well as two pet penguins. How many animal feet are on farmer Franks farm?	68 [feet]
7	Vincent does 8 math problems every day of the week, whereas Alex does 14 math problems each day. In one week, how many more math problems has Alex done than Vincent?	42 [problems]
8	What is the sum of the first 100 whole numbers?	5050
9	What month will it be 300 months from April?	April
10	Zoe wants to buy a new phone that costs \$168.00. She already has \$54.00 saved. For how many more days does she need to save money if she saves \$5 per day?	23 [days]

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COLLEGE KNOWLEDGE BOWL ROUND – EXTRA

#	Problem	Answer
1	Felix checks out a Magic Tree House book with 127 pages and a Clifford book with 59 pages. After reading both books, how many pages did Felix read?	186 [pages]
2	How many centimeters is zero point five three meters?	53 [cm]
3	If you can purchase 8 eggs for 26 cents, how many eggs can you buy for a penny and a quarter?	8 [eggs]
4	If two fair dice are rolled, what is the probability of rolling a sum of 11, if one die is showing a value of 3?	0 (zero)
5	Evaluate the square root of 225.	15
6	What is the sum of one hundred twenty-three and three hundred twenty-one?	444

Extra

Final Score:

KEY

(Out of 8)

“Math is Cool” Championships -- 2013-14

School: _____ Room # _____ Team # _____

Name: _____ Proctor: _____

4th Grade

Mental Math – 30 sec per question**8 problems read orally to everyone - Approximately 8% of Individual Score - 25% of team score**

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	Answer	1 or 0	1 or 0
1	4 [sides]		
2	55		
3	1/5		
4	50 [lights]		
5	140 [cents]		
6	15		
7	727		
8	3/8		

“Math is Cool” Championships – 2013-14

4th Grade – April 18, 2014

School Name _____ Team # _____

Proctor Name _____ Room # _____ Division: _____

Final Score:

KEY

First Score

(out of 20)

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	A		
2	E (43 math facts)		
3	B		
4	D		
5	C		
6	B		
7	A		
8	D		
9	B		
10	C		

“Math is Cool” Championships – 2013-14

4th Grade – April 18, 2014

School Name _____ Team # _____

Proctor Name _____ Room # _____ Div: _____

Final Score:

KEY

First Score

(out of 10)

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	180 [arrows]		
2	5000		
3	20 [quarters]		
4	1/128		
5	30 [ways]		
6	4 [pentagons]		
7	36 [integers]		
8	14 [numbers]		
9	Eggs and Orange [any order]		
10	50		

"Math is Cool" Championships -- 2013-14

KEY

4th Grade – April 18, 2014

School: _____ Team # _____

Proctor: _____ Room # _____ Div _____

PRACTICE RELAY

Answer for person # 1	Answer for person # 2	Answer for person # 3	Answer for person # 4
2	4	60	6
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
6 [faces]	72 [inches]	7	30
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
18 [inches]	21	49	7/15
1 or 0	1 or 0	1 or 0	2 or 0

Final Score:

"Math is Cool" Championships -- 2013-14

(Out of 8)

School: _____ Room # _____ Team # _____

Name: _____ Proctor: _____

4th Grade

Mental Math – 30 sec per question

8 problems read orally to everyone - Approximately 8% of Individual Score - 25% of team score

*You may NOT be seated next to anyone from your school. If you are MOVE NOW to avoid being disqualified! When it is time to begin, the proctor 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 after completion of 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 will be asked the same eight questions. Individual scores used to determine individual placing will be determined by the sum of the Mental Math score and the Individual Test score for each individual. In addition, the top three Mental Math scores from one team will be totaled and doubled and will contribute to 25% of the team score.*

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

“Math is Cool” Championships – 2013-14

4th Grade – April 18, 2014

School Name _____ Team # _____

Proctor Name _____ Room # _____ Division: _____

Final Score:

First Score

(out of 20)

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			
2			
3			
4			
5			
6			
7			
8			
9			
10			

"Math is Cool" Championships – 2013-14

4th Grade – April 18, 2014

School Name _____ Team # _____

Proctor Name _____ Room # _____ Div: _____

Final Score:

First Score
(out of 10)

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			
3			
4			
5			
6			
7			
8			
9			
10			

“Math is Cool” Masters – 2013-14

April 18, 2014

Total Correct
KEY

STUDENT NAME: _____ **School Name:** _____
Proctor Name: _____ **Team #:** _____ **Room #:** _____

4th Grade Individual Contest – Score Sheet

	Answer	1 or 0	1 or 0
1	17		
2	9		
3	2		
4	12 [stamps]		
5	17 [th floor]		
6	132		
7	5 [pens]		
8	131		
9	0.02		
10	3		
11	5 [cm]		
12	$\frac{1}{2}$ or $\frac{3}{6}$		
13	16		
14	4		
15	72		
1-15 TOTAL:			

DO NOT WRITE IN SHADED REGIONS

	Answer	1 or 0	1 or 0
16	18		
17	8 [passengers]		
18	$\frac{6}{9}$ or $\frac{2}{3}$ or $\frac{4}{6}$		
19	11 [inches]		
20	17		
21	103		
22	92 [% or percent]		
23	5 [% or percent]		
24	64 [days]		
25	7		
26	37		
27	$\frac{3}{7}$		
28	10 [one-yen coins]		
29	$\frac{5}{11}$ or 5 out of 11		
30	21 [pairs of boots]		
16-30 TOTAL:			

	Answer	1 or 0	1 or 0
31	37		
32	24 [zeros]		
33	35 [diagonals]		
34	70 [minutes]		
35	960 [ears of corn]		
36	59		
37	[\$] 533.93		
38	126		
39	195 [people]		
40	10 [boys]		
31-40 TOTAL:			

4th Grade

“Math is Cool” Masters – 2013-14

April 18, 2014

Total Correct KEY

STUDENT NAME: _____ **School Name:** _____

Proctor Name: _____ **Team #:** _____ **Room #:** _____

4th Grade Individual Contest – Score Sheet

	Answer	1 or 0	1 or 0
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
1-15 TOTAL:			

DO NOT WRITE IN SHADED REGIONS

	Answer	1 or 0	1 or 0
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
16-30 TOTAL:			

	Answer	1 or 0	1 or 0
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
31-40 TOTAL:			

4th Grade