Math is Cool" Championships – 2014-15

8th Grade – November 7, 2014

Student Name _____

Proctor Name _____ Room #_____

SCHOOL NAME _____ **Team #**_____

INDIVIDUAL MULTIPLE CHOICE - 15 minutes – 10 problems – 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. It is not necessary to write your personal name on the test, but you may put it at the bottom of the test so your coach will be able to give you back the correct test. This test is taken individually, but it is part of your team score, including zeros for missing team members. Your team score will be calculated by taking the mean of your four team members' scores. When you are prompted to begin, tear off the colored sheet and begin testing. ***Since this is a multiple choice test, ONLY a letter response should be indicated as an answer on the answer sheet.*** *No talking during the test.*

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			

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Sponsored by:

8th Grade – November 7, 2014

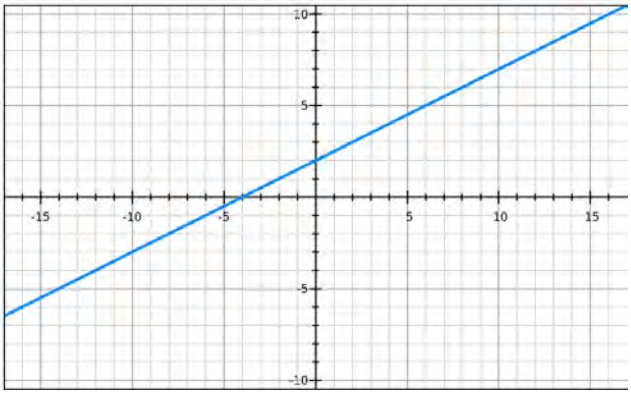
Individual Multiple Choice Contest

USE THE FOLLOWING INFORMATION TO ANSWER QUESTION # 1.

Kailash and Malala are go-kart racing. Kailash's go-kart can go 30 mph but must stop every 10 miles to gas up which takes 2 minutes to gas up. Malala's solar-powered go-kart never needs to stop and travels at 26 mph.

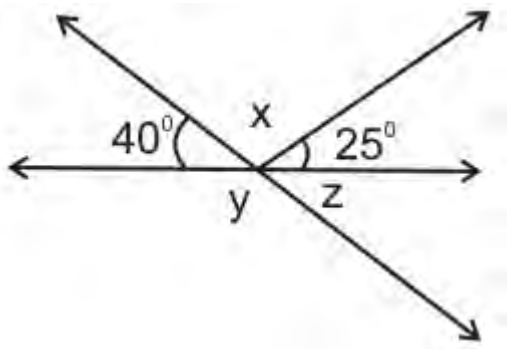
1	Which go-kart will win a 100 mile race? A) Kailash's B) Malala's D) Can't be determined

USE THE FOLLOWING INFORMATION TO ANSWER QUESTIONS # 2-4.



2	What is the slope of the line? A) -1/2 B) 1/2 C) 2 D) -2 E) Answer not given
3	What is the y-intercept of the line? A) (0, 2) B) (2, 0) C) (-4, 0) D) (0, -4) E) Answer not given
4	What equation best models the above situation? A) $y = \frac{1}{2}x - 2$ B) $y = 2x + 2$ C) $y = -\frac{1}{2}x + 2$ D) $y = -2x - 2$ E) Answer not given

USE THE FOLLOWING INFORMATION TO ANSWER QUESTIONS # 5-6.



5	What is the measure of x, in degrees? A) 35^{O} B) 135^{O} C) 85^{O} D) 115^{O} E) Answer not given
6	What is the sum of the measures of x and y, in degrees? A) 255^{O} B) 230^{O} C) 295^{O} D) 25^{O} E) Answer not given

USE THE FOLLOWING INFORMATION TO ANSWER QUESTIONS # 7-8.

Malala decided to start saving money in her piggy bank. She started out first by cleaning her room and putting all money she could find lying around her room in the piggy bank. Next she saved the same amount of money each week and put it in her piggy bank. After 5 weeks of saving, she had \$33.95 in her account. After 11 weeks of saving, she had \$54.05.

7	How much, in dollars, does Malala save each week? A) \$33.95 B) \$54.05 C) \$20.10 D) \$3.35 E) Answer not given
8	How much, in dollars, did she find on the floor in her room? A) \$17.20 B) \$33.95 C) \$54.05 D) \$3.35 E) Answer not given

USE THE FOLLOWING INFORMATION TO ANSWER QUESTIONS # 9-10.

A group of middle school teachers are planning a trip to a zoo. If the tickets are purchased through a company called "Take Your Students to the Zoo", the cost of each ticket is \$9.50. If the tickets are purchased directly from the zoo, the tickets cost \$9.00 each plus 8% sales tax; however, every tenth student gets in free. If the tickets are purchased from a company called "Take a Group to the Zoo", the total cost is \$400 plus 7.5% sales tax, and you get to take as large a group as you want.

9	What is the smallest amount, in dollars, that could be paid to take 14 students to the zoo? A) \$136.08 B) \$133.00 C) \$126.36 D) \$125.48 E) Answer not given
10	What is the smallest number of students that would make purchasing tickets from "Take a Group to the Zoo" the best deal? A) 48 B) 50 C) 52 D) 54 E) Answer not given