KSU TUSC MATH

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AWARENESS WEEK

Algebra Contest
April 15–18, 2019

Name: _____

Address: _____

Telephone Number: _____

Email Address: _____

CONTEST PRIZE: The winner of this contest will receive a $200 tuition waiver to Kent State Tuscarawas.

RULES FOR THE ALGEBRA CONTEST:

- This contest is open to all students currently registered at Kent State Tuscarawas.

- You must show all work. Entries submitted without showing work will be disqualified.

- In the event that more than one correct entry is received for this contest, a random drawing of all correct entries will be used to determine the winner.

- All winners will be notified by mail and will be listed on the Kent State Tuscarawas Math Awareness Week Website at

  http://www.personal.kent.edu/∼bosikiew/MathWeek

- All entries should be submitted to either Dr. Beth Osikiewicz, B-115, or Dr. Jeff Osikiewicz, B-110, by 7:00 PM, Thursday, April 18, 2019. Problems may also be placed in our mailboxes located in the Faculty Support Office, B-120.

- If you have questions concerning the problems, please email one of the organizers at bosikiew@kent.edu or josikiew@kent.edu

- The organizers are not responsible for late or lost entries.

- The organizers reserve the right to modify the rules if necessary. The decision of the judges is final.

- The $200 tuition waiver can only be used at Kent State Tuscarawas during Summer 2019, Fall 2019, or Spring 2020. It **cannot** be exchanged for a gift certificate or cash, and **cannot** be transferred to another student.

DUE BY THURSDAY, APRIL 18, 2019 AT 7:00 PM

Signature: _____

Algebra Contest
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Directions: This contest has **three parts**. Be sure to show all work and circle your final answer. Exact answers only – NO DECIMALS. Feel free to attach additional sheets of paper, if necessary.

PART I. Solve for x. You MUST show all work.

$$3\{2[4(2x-5)-3(2x+1)+7]-3[4(2x-3)-5(3x+2)+4]\}=10$$

PART II. Solve for x. You MUST show all work.

$$\frac{6(x+2) - 5(x+3)}{3(x+2) - (x+6)} = \frac{2(4x+5) - 3(2x+1)}{2(4x+5) - (7x+6)}$$

PART III. Solve for x. You MUST show all work.

$$\sqrt{1 + 3\sqrt{20 - x + \sqrt{10 + 2x}}} - 4 = 0$$