

# 2013 John O'Bryan Mathematical Competition

February 28, 2013 10:00 AM - 12:00 PM

Directions: Do not write on the problems provided. All answers must be written legibly and

11. Find the sum of all distinct positive integral factors of 2013.

12. For all real numbers, define  $a \otimes b = \frac{a^2 + 3b}{4a}$ . If  $a \otimes 17 = 5$ , find the sum of all possible value(s) of  $a$ .

Name: \_\_\_\_\_ ANSWERS \_\_\_\_\_

Team Code: \_\_\_\_\_

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