

$$|50 - 10|$$

randomly throwing two fair 6-sided dice (the faces of each die are labeled with the values 1, 2, 3,

mean of the first three common terms of these sequences.

4. Let  $y = mx + b$  be the equation of a line that contains  $(2, 18)$  and is perpendicular to the line whose

some order form an arithmetic sequence. Express your answer as an improper fraction reduced to

$$m^2 + 2m + 1$$

Names: \_\_\_\_\_

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

2015 John O'Bryan Mathematical Competition  
Two-Person Speed Event

SCORE

Calculators are not allowed to be

2<sup>2015</sup>: 6 points  
All Others: 3 points

There is another minute time limit.

only one answer each round. To

7.

T2.

Note: All answers must be written legibly and in simplest form. Exact answers are to be given unless otherwise indicated.

scores.

3. 38

4. 105

1<sup>st</sup>: 7 points  
2<sup>nd</sup>: 5 points  
All Others: 3 points

There is a three-minute time limit for each question. You may submit only one answer for each question.

7. 3860

3c.

8. 50

T1. 43

T2. 535