BECA / IB Math / Writing Assessment

Mathematicians explore their ideas with mathematics and communicate their results in writing. You will do that for this assignment by analyzing taxi fares mathematically and reporting your results in a one-page (or more) paper.

Topic: Compare New York City taxi fares ($2.50 plus $0.50 per 1/5 mile) to one or more of the alternatives we have discussed: 1) A flat rate of $8 per ride, 2) No initial charge plus $0.75 per quarter-mile, 3) White Plains taxi rates: $4 first 2/8 mile plus 0.25 each additional 1/8 mile. Discuss rides of different distances (at least two).

Format: An exploration paper of one or more pages following MLA formatting guidelines. Employ text, graphs, equations, and data tables.

Organization: Include an introduction, body, and conclusion. State the aim of the paper clearly in the introduction, and in the conclusion discuss how you achieved the aim.

Collaboration and resources: This must be your own work. You may discuss it with classmates or other people, but all of it must be your own. You may use the internet, previous assignments, notes, and the textbook (i.e. it is “open book”) but references must be cited. See *Academic Honesty* pp. 591-593 in the textbook.

Rubric/grading: Your paper will be scored according to the IB Mathematics Criteria A: Presentation & B: Mathematical communication (pp. 587-589). Due at the end of the period to Google Classroom.

Build on the work that we did together last week (see following page as a reminder).

John Doe

Dr. Huson

IB Math 11.2

14 October 2021

Taxi Fare Project

$C(d) = 2.50 + 0.50d$

Where

C(d) is the cost of the taxi ride

d is the distance in fifths of a mile

d in fifths of a mile	$C(d)$ cost in dollars
0	2.50
1	3.00
2	3.50