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IB Project for Number Operations
Project: Philanthropic People (MYP Year 1) Criterion C (Communication) and Criterion D (Applying Mathematics to Real World Contexts)
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Project Overview: This project consists of four parts.

Part 1: Reviewing the charitable donations of Mark Zuckerberg and answering questions.

Part 2a: Researching and selecting a celebrity or other wealthy person who has made charitable contributions
Part 2b: Writing a one page information sheet about what makes this person stand out.
(Note: the contributions must have actually been paid, not just promised).

Part 3: Investigating and answering questions.

Part 4: Creating a presentation:
Choice 1: It could be a regular sized poster board or small trifold cardboard (not the large trifold cardboard used for Science Fairs). It should be decorated neatly and show the person's name clearly, along with pictures and details that make the person well known. It must display the one page essay and all questions with answers, including the table completely filled out and the circle graph.
-OR-
Choice 2: It could be a slide presentation (minimum 10 slides and presentation cannot be longer than 4 minutes). The presentation must show the person's name, pictures, and details that make the person well known. It must also contain all the questions with answers (although the work can be shown on paper). There must be a slide showing the completed table, as well as the circle graph and color key. Remember that student has access to google docs where they can create and save their slide presentation. They must use the same userid/password that they use for iReady.

## Part 1: MEET A MATHEMATICIAN - MARK ZUCKERBERG (1984-PRESENT)

Learner Profile: Caring
Some celebrities and wealthy people have made large charitable donations. Even so, many people feel like those giving the donation are so wealthy, that they don't even notice the money donated missing. Mark Zuckerberg, a computer programmer, mathematician, and founder of the social networking site Facebook, has pledged to donate $99 \%$ of his 45 billion dollars in assets to various charities throughout his lifetime.

1. Will the amount donated by Zuckerberg affect his lifestyle? (Look at how much is left of his 45 billion dollars - can he live on that?). Show work.
2. Would it have been better for Zuckerberg to use a fixed number amount as a donation every year instead of a percentage? (Think about what would happen if he would earn more than 45 billion or less than 45 billion in a year). Show work for both.

Part 2: a. The person I chose is:
b. Below is an essay describing this person's life:

## Part 3: Investigation and Answers.

1. Will the amount donated by Zuckerberg affect his lifestyle? (Look at how much is left of his 45 billion dollars - can he live on that?). Show work.
2. Would it have been better for Zuckerberg to use a fixed number amount as a donation every year instead of a percentage? (Think about what would happen if he would earn more than 45 billion or less than 45 billion in a year). Show work for both.
3. Is it fair to judge anyone who makes charitable donations, regardless of the size or amount? Answer in complete sentences.
4. Why do people donate money? Answer in complete sentences.
5. Approximately, how much does the person you chose earn per year? $\qquad$
6. Calculate how much that would be per month. Show work.
7. Approximately, how much does this person donate in total per year? $\qquad$
8. Calculate how much that would be per month. Show work.
9. Fill out the table with answers from \#5-8 and next to "Charity:" write name of the charity:

|  | Per Year | Per Month |
| :--- | :--- | :--- |
| Earnings |  |  |
| Total Charitable Donations |  |  |
| Charity 1: |  |  |
| Charity 2: |  |  |
| Charity 3: |  |  |
| Charity 4: |  |  |
| Charity 5: |  |  |

10. Create a fraction of the total donated per year to the total earned per year.
11. Create a fraction of total donated per month to the total earned per month.
12. Convert the answers to \#11 and \#12 to decimals. Show work.
13. Are the answers in \#13 very different or closely similar? $\qquad$
14. Create a fraction of amount donated per year and amount earned per year for every charity in table.

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |

15. Now convert every fraction in \#14 to a decimal and then to a percent. Show work on separate paper.

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |
|  |  |  |  |  |

16. Create a circle graph to show the total amount earned in a year and the amount of money given to each charity using the percentages found in \#15. Use colors and create a color key.


| Charity Name | Color |
| :--- | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

17. If you earned the same amount of money per year, would you give more or less? $\qquad$
18. To what charity or charities would you give to and why?
