CALCULUS
MATH MATTERS

Why Learn Calculus?

Read this article and then answer the questions in full sentences on a separate piece of paper. Please start each numbered item on a new line.

1. (a) What is the author's facetious response to the question "Why learn calculus?"
    (b) Mathematically, what are the two parts of that answer?

2. (a) Mathematically, what is integration used to find?
    (b) What is the real application of this and what is it used to study?
    (c) Give two real world examples of this provided by the author.
    (c) What 2 related topics did you study at the <u>very end</u> of Precalculus which researchers are also trying to apply to the study of the topic in 2(b)?
    (d) Suggest a real world example of your own where integration might be used.

3. (a) Mathematically, what are derivatives used to find?
    (b) What do derivatives allow you to predict?
    (c) List two real world examples of this provided by the author.
    (d) Suggest a real world example of your own where derivatives might be used.

4. (a) What does the author believe needs to be done to make the study of calculus more valuable?
    (b) What is the term for creating a representation of a real world situation?
    (c) Give a real world example of this that was NOT used in the article.