

Calculus Sing-Along Time

Riemann Sums [sung to the tune of “Jingle Bells”]

Riemann Sums, Riemann Sums

Counting areas

Of rectangles whose widths get small

We need to count them all

Riemann Sums, Riemann Sums

Counting areas

Of rectangles whose widths get small

We need to count them all

We learn to integrate

It’s really lots of fun

It’s easier to find

Than those old Riemann Sums

We learn to sub a “u”

When things get sort of hard

Beware of those division bars

And watch for radicals [repeat the refrain]

Calculus Class [sung to the tune of “Silent Night”]

Calculus class, Calculus class

Teacher’s cruel

Hate the Chain Rule

Find the prime of f of g

It’s supposed to fill us with glee

Times dx of the outside

By dx of the inside

The Function Song [sung to the tune of “The Dreidel Song”]

I have a little function
Whose behavior I must find
I know that I can do this
I have to find f prime

Chorus

Oh, functions, functions, functions
Where do they take a rest?
Functions, functions, functions
My teacher is a pest! [Alternate line: My teacher is the best!]

Where are those pesky “ cv ’s”
Remember “undefined”
Where are all the extrema
Can’t use a number line! [back to chorus]

Derivatives, Derivatives [sung to the tune of “O Christmas Tree”]

Derivatives, derivatives
They help us find the rate of change
Derivatives, derivatives
They’re not that hard, they’re in our range

The product rule is so much fun
It’s one prime two plus two prime one
Derivatives, derivatives
They help us find the rate of change

Calculus: The Musical!

Sing-along

Chorus for “Differentiabil”

*Infinitesimals dy over dx
Why he wrote it I can't say,
Leibniz just liked it better that way*

Chorus for “Power Rule”

*La la la la la la la la la la la la la
POWER RULE
La la la la la la la la la la la la la
POWER RULE*

Chorus for “A Critical Point”

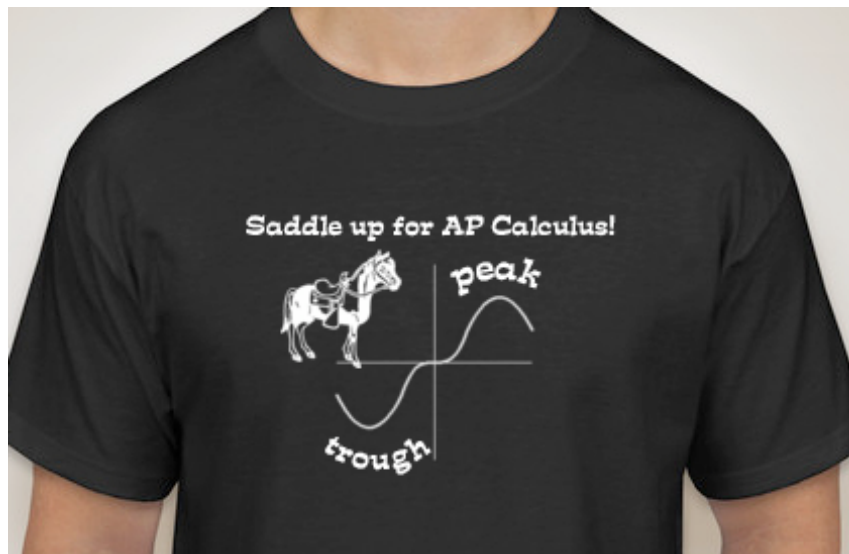
*First time:
You know a saddle is a critical point,
That also is an inflection point.
You know, you know a saddle is an inflection point,
That also is a critical point.*

*Second time:
You know a saddle is a critical point,
That also is an inflection point.
You know, you know a saddle is an inflection point,
That also is a critical, it's a critical, it's a critical point*

Chorus for “Maxima and Minima”

[Don’t forget your signs for this one!]

***Saddle, peak and trough and
Saddle, peak and trough and
Saddle, peak and trough and peak and trough and peak and trough
and
Saddle, Peak and Trough and
Saddle, peak and trough and
Saddle, saddle, peak and trough and peak and trough***



Chorus for “Physics Extravaganza”

Note: there are two different versions so listen before you start singing

Repeat three times:

Acceleration’s rate of change is impulse also know as jerk

OR

Acceleration’s rate of change is surge, or lunch, or jolt, or jerk!