

Maths Jammin'

Writing a song for the MathsJam Jam

Random advice from a rank amateur
songwriter and haphazard guitarist



5 tips for writing a MathsJam
Jam song.....

.....in 5 minutes

Scalene, Scalene, Scalene, Scalene
Scalene triangles, I'm your biggest fan
Scalene, Scalene, Scalene, Scalene
All your angles have a different tan

Tip #1

No source is too sacred



or too silly,



no area of maths too trivial

$$\begin{array}{ccc} \pi^{-1}(U) & \xrightarrow{\varphi} & U \times F \\ \pi \downarrow & & \nearrow \text{proj}_1 \\ U & & \end{array}$$

and no line too cheesy.



2016

A song about...

The golden ratio
Prime numbers
The Monty Hall problem
Being a maths jammer
Limits
Approximating pi
Scalene triangles
Trig ratios

based on...

Sweet Child O' Mine
Creep
The Winner Takes it All
Modern Major General
59th Bridge St Song
American Pie
Jolene
Santa Claus is Coming to
Town

2017

A song about...

Ada Lovelace
The Argand diagram
The Mandelbrot set
The best maths lecturer
Congruent triangles
Division by zero

Kinematics
Using Tau
MC Escher
The Millennium Prize

based on...

Bicycle Made for Two
Roxanne
Vincent
Pinball Wizard
L.I.F.E.S.G.O.E.S.O.N
Ever Fallen in Love with
Someone
Free Fallin'
Fulsome Prison Blues
Helter Skelter
Where Have All the
Flowers Gone

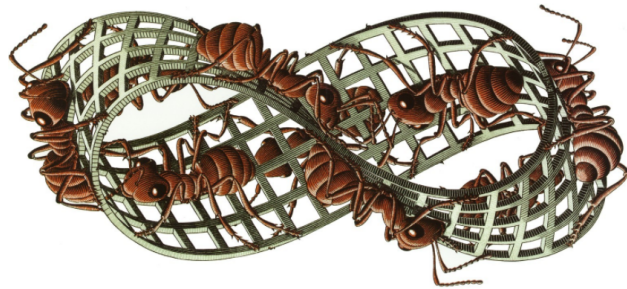
Tommy is a triangle who's searching for amour
Hoping for some romance
with the triangle next door
She's got acute angles and a common side

...look at the right
angle there in the triangle, opposite the hypotenuse
and when I know one side length and an angle
I know which ratio to use

Once upon a time I used a function for y ,
but then it only drew the top part

With parametrics: I get a total ellipse, not a half

Well do you, don't you want to be obtuse
Ladders going sideways really ain't that much use
Living with you is the ultimate bad trip
I've been chased by ants around a Moebius strip



Tip #2

You can get away with a lot if you have at least one really good line..

“So I shot a man in Math class, just 'cause he used pi”

Fullsome Circle Blues – Tom Button

“The winner gets to gloat.....the loser gets a goat”

A Game with Monty Hall – Me

**At his age his hearing falters,
His eyes have gone as well
But that won't even stop him,
He writes by sense of smell
Always knows the theorems,
I've never seen him floored
That crazy maths professor
Sure plays a mean black board**

Tip #3

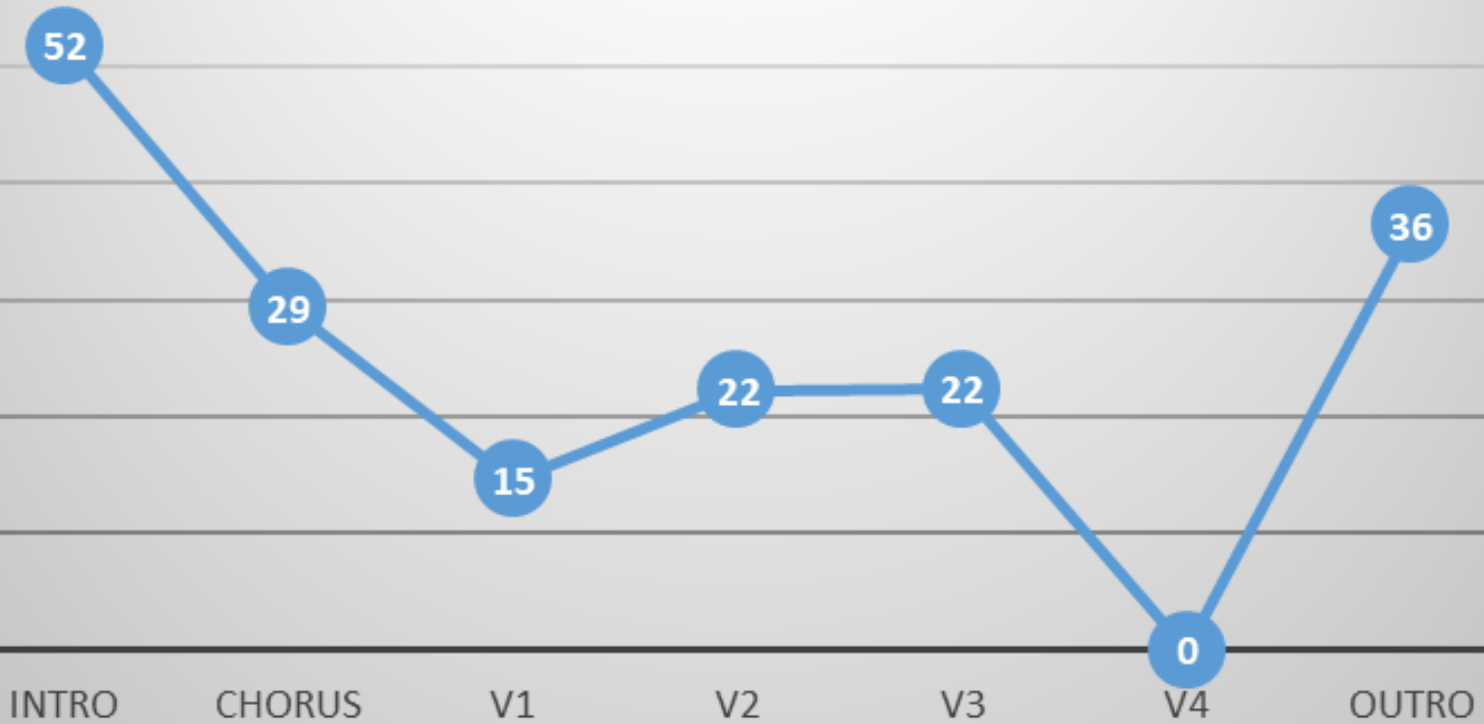
Try to keep some recognisable elements of the original song

i) in the words

A long, long time ago
I can still remember how
those circles used to make
me smile
And I knew if I had my
chance,
That I'd find the
circumfer-ance
And maybe I'd be happy for
a while

A long long time ago
I can still remember how
That music used to make
me smile
And I knew if I had my
chance
That I could make those
people dance
And maybe they'd be happy
for a while

Identical Words



ii) in the general feel of the song

Look at you, twenty-four	=	When you were here before
You divide so many ways	=	Couldn't look you in the eye
In fours and in sixes	=	You're just like an angel
In threes and in eights	=	Your skin makes me cry
You're a composite number	+1	You float like a feather
In a composite world	=	In a beautiful world
You've so many factors	=	And I wish I was special
I wish I had factors	=	You're so ***** special

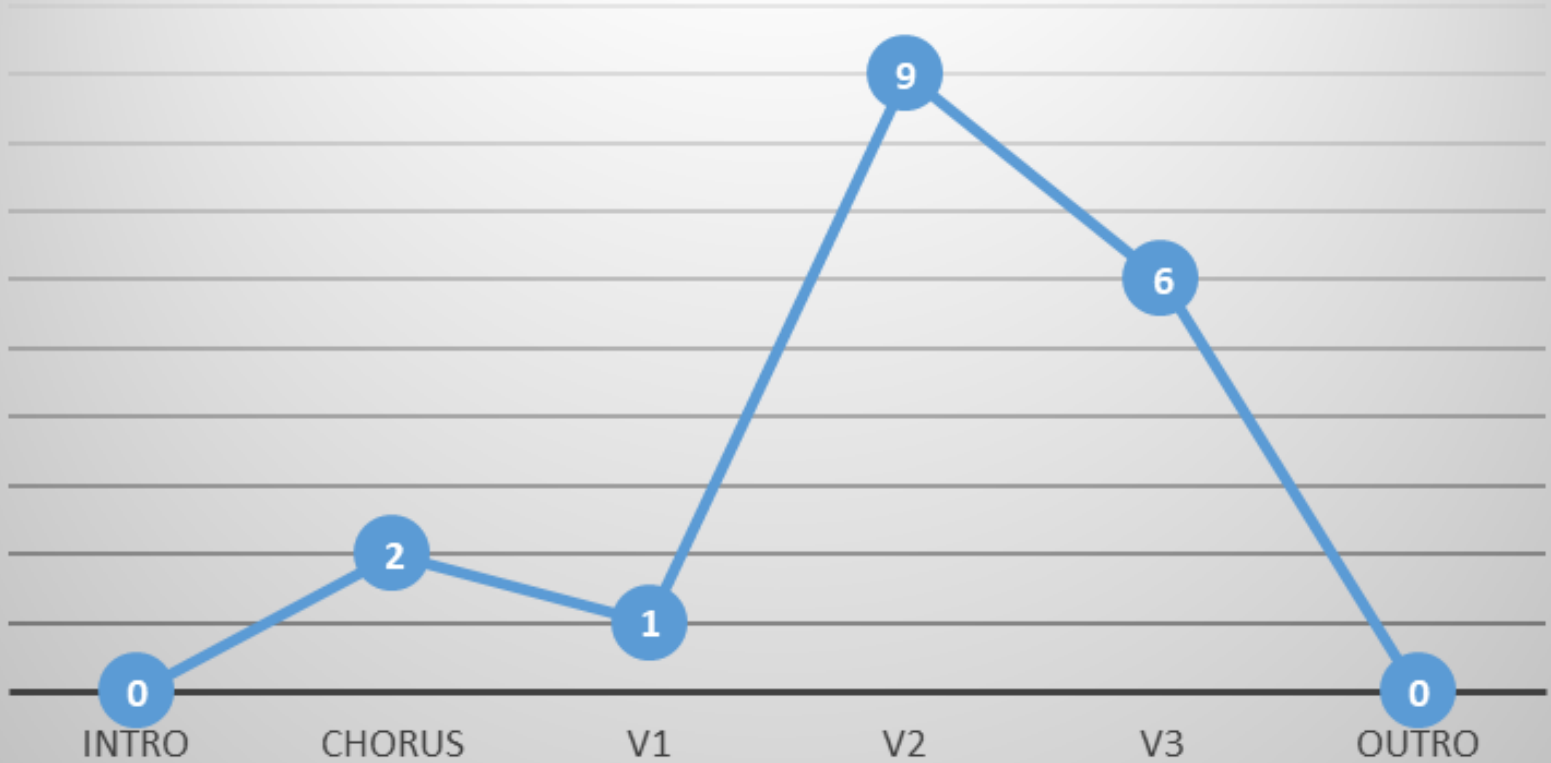
Prime – Sam Hartburn

Creep – Radiohead

Word stumble

Approximate Pi

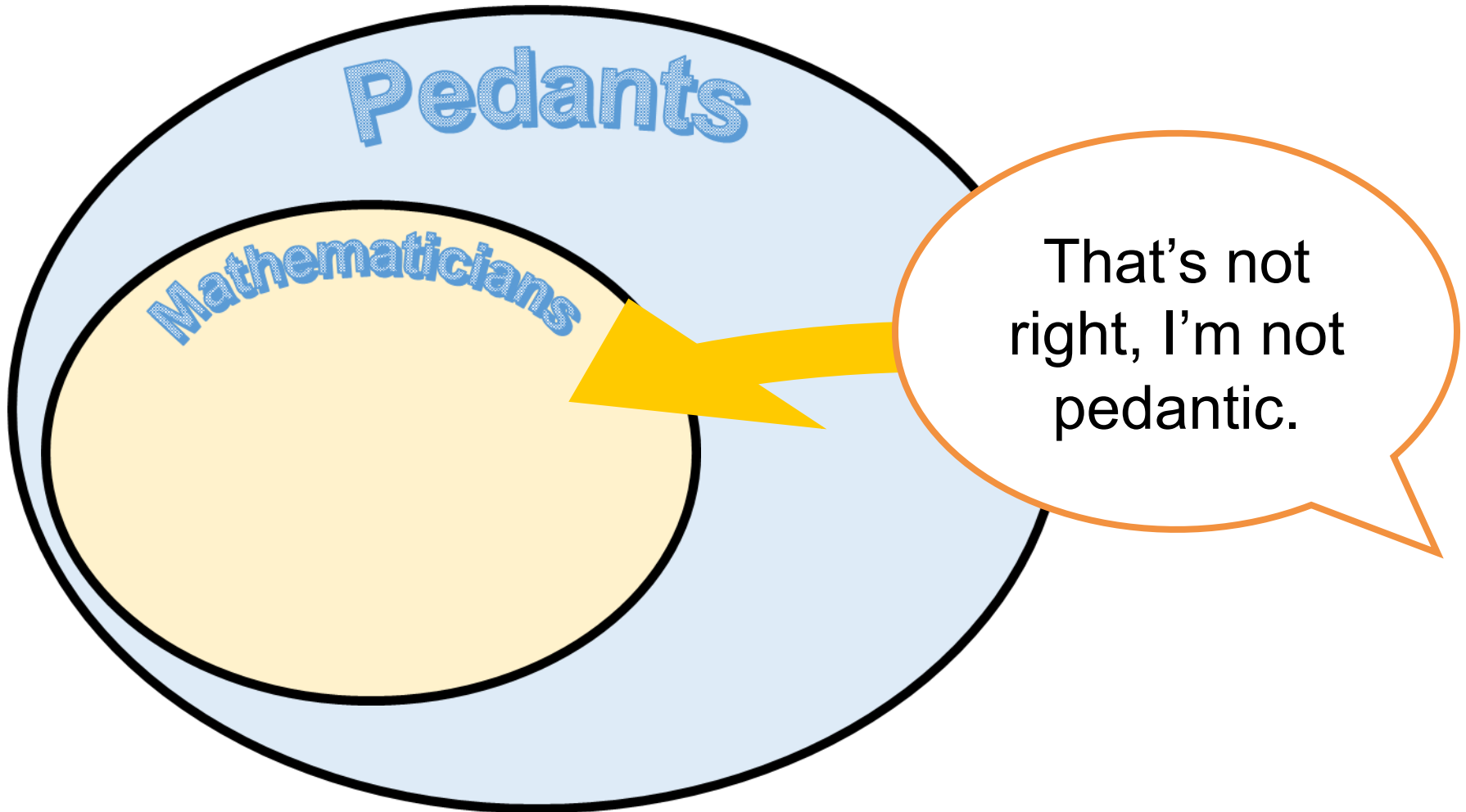
Word stumble



And all the nodes of odd degree need finding
And weights of trails for every pair combining
There are many sums from which
to choose an optimal
And repeat its arcs

Tip #4

Try to make sure the maths is accurately described



And all the nodes of odd degree need finding

And weights of trails for every pair combining

There are many sums from which

to choose an optimal

And repeat its arcs

Tip #5

It doesn't have to be really funny or really clever.

Tan, cos and sine

Functions never seemed so good

Now I can find

Lengths I never thought I could

I'm a point mass in a high school problem

No dimensions to call my own

I'm a point mass modelling a baseball

An' I'm movin' 'cos I've just been thrown

Some inspiration

MathsJam Jam songs waiting to be written.....

Maths Jokes Hurt so Much

Sad Songs (say so much)

“If it’s purple and commutes it’s a grape that’s abelian”

“To make sure all hope is gone why don’t you tune in and turn them on”

MathsJam Jam songs waiting to be written.....

Smooth Integral

Smooth Criminal

“I was looking for a function
From a gradient - made an assumption”

“You’ve been searching for a smooth integral”

MathsJam Jam songs waiting to be written.....

No title yet, possibly “The Topologist”!

Piano man

“It’s five o’clock in the common room,
the regular crowd shuffles in.

There’s an old man sitting next to me

.....

He said son can you find me a manifold, I’m not
really sure how it goes

But it’s”