

Mathematics 1110H – Calculus I: Limits, Derivatives, and Integrals

TRENT UNIVERSITY, Fall 2023

Assignment # π Equation Limericks

Due just before midnight on Monday, 30 October.*

A limerick is a poem with five lines. The first, second, and fifth lines should have nine syllables each and rhyme with each other, and the third and fourth should have six syllables each and rhyme with each other. It is common to mangle spelling, pronunciation, and grammar when composing limericks in English. A fairly well-known example of a limerick, relating to physics, is the following:

There was a young lady named Bright,
Who traveled much faster than light.
She started one day
In the relative way,
And returned on the previous night.

By Hellen Barton Tuttle, or A.H. Reginald Buller, F.R.S., or Anonymous ...

An obscure subtype of the limerick is the equation limerick, which states an equation. Examples:

$$(12 + 144 + 20 + 3 \cdot \sqrt{4}) / 7 + 5 \cdot 11 = 9^2$$

a dozen, a gross, plus a score
plus three times the square root of four
divided by seven
plus five times eleven
is nine squared (and not a bit more)

Posted to sci.math by Rajeev Krishnamoorthy in 1992.

$$\int_1^{3^{1/3}} t^2 dt \cdot \cos\left(\frac{3\pi}{9}\right) = \log(\sqrt[3]{e})$$

The integral tee squared dee tee
From one to the cube root of three
Times the cosine
Of three pi over nine
Is the log of the cube root of e.

Posted to sci.math by Gerald A. Edgar in 1992. (Slightly edited.)

$$\ln(e^4) (\sqrt{1024}) + 6(12) - 8(23) = 16$$

The lon of e to the four
Times the square root of ten twenty-four
Adding six dozen please
Minus eight twenty-three's
Is sixteen, case is closed, shut the door.

Chris Cole, a MATH 110Y student in 2002-2003.

1. Write an *original* equation limerick. The equation must be correct and completely described by the limerick! [10]

NOTE: This is an extra assignment which would give you a larger pool from which the best nine are chosen to count towards the final mark. Really, though, it's just to have something fun to do over Reading Week! :-) Also, don't forget that you have a midterm to study for ...

* You should submit your solutions via Blackboard's Assignments module, preferably as a single pdf. If submission via Blackboard fails, please submit your work to your instructor by email or on paper.