

MATH-CCTH 1080H – Mathematics for Everyday Life
TRENT UNIVERSITY, Winter 2018 in Peterborough

Assignment #4

Toss, toss, toss a coin . . .

Due on Friday, 9 February.

1. A fair coin has an equal probability of coming up heads or tails. Such a coin is tossed until the second time a head comes up. What is the probability that this will require more than five tosses? [10]

Unified Field Theory

In the beginning there was Aristotle,
And objects at rest tended to remain at rest,
And objects in motion tended to come to rest,
And soon everything was at rest,
And God saw that it was boring.

Then God created Newton,
And objects at rest tended to remain at rest,
But objects in motion tended to remain in motion,
And energy was conserved and momentum was conserved
and matter was conserved,
And God saw that it was conservative.

Then God created Einstein,
And everything was relative,
And fast things became short,
And straight things became curved,
And the universe was filled with inertial frames,
And God saw that it was relatively general,
but some of it was especially relative.

Then God created Bohr,
And there was principle,
And the principle was quantum,
And all things were quantified,
But some things were still relative,
And God saw that it was confusing.

Then God was going to create Furgeson,
And Furgeson would have unified,
And he would have fielded a theory,
And all would have been one,
But it was the seventh day,
And God rested,
And objects at rest tend to remain at rest.

Tim Joseph