

**Mathematics 1550H – Introduction to probability**

TRENT UNIVERSITY, Summer 2016

**Assignment #3**

**“The only way to win is cheat ... ”**

*Due Monday, 11 July, 2016.*

In the Kafka-esque dystopian future in which mathematical scientists have taken over the world, you are condemned\* to working out the base 7 expansion of  $\pi$  by hand unless you can correctly answer the following question:

*If you were to pick an answer to this question at random from among the choices below, what is the probability that it would be correct?*

- (a) 0.2
- (b)  $1/\pi$
- (c)  $1/5$
- (d) 0.0
- (e)  $4/10$

**1. Explain! [5]**

While serving your sentence of computing the base 7 expansion of  $\pi$  by hand, your appeal goes forward. The court decides it will reduce your sentence to time served if you can answer the following question correctly:

*How many letters are there in the answer to this question?*

**2. Well? [5]**

Remember: no one expects the Mathematical Inquisition!

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\* For writing that  $\frac{1}{2} + \frac{1}{3} = \frac{1+1}{2+3} = \frac{2}{5}$ . At least you didn't divide by 0 ... :-)