

Some feedback: Assignment 3

- Marked work now available to collect from the usual place (if your work is not there, it could be that it is being moderated)
- Question 1:
 - X : No. of tropical depressions, and $X \sim Po(\theta)$
 - Also, from question 9, $\theta \sim Ga(11.05, 0.63)$
 - Obtain the posterior, and “write a short report”
 - 10 marks for maths; generally done well
 - 12 marks for the “report” – including (i) numerical summaries (prior means/st. dev. versus posterior values); (ii) plot/sketch of prior versus posterior; (iii) written comments – severely punished if you didn’t write anything!

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- Question 9: Use *MATCH* to obtain the prior used in question 1, that is $\theta \sim \text{Ga}(11.05, 0.63)$
 - “Round the parameters in your fitted distribution to 2 decimal places” – make sure you do as the question asks!
 - “Phrase a question that you could ask the meteorologist...”. Must use the tail probabilities – i.e. “Is it highly unlikely to see more than 35 tropical depressions per day?” not enough. Also, must avoid using any statistical jargon here!
 - “Use R to produce a plot of the prior, and confirm the feedback percentiles you obtained in *MATCH*” – plots getting better, but still some shabby labelling.

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■ Question 10:

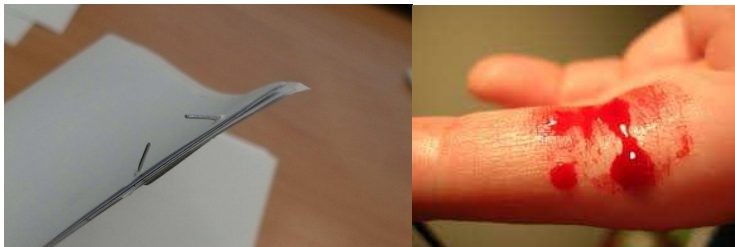
λ : $\Pr(\text{Tropical depression develops into a hurricane})$

- $U(a, b)$, $N(a, b)$, $Be(a, b)$, $Ga(a, b)$?? $Be(a, b)$
- $Mode(\lambda) \approx 0.7$ and $\Pr(\lambda < 0.3) = 0.001\dots$ Use R to find a and b
- Marks lost if R code not included

■ And now a word from the marker (again) on “dangerous stapling”...

Dangerous stapling

Several assignments were poorly stapled



Staples like this are dangerous and can cause pages to go missing. Many of your assignments had to be re-stapled. It is your responsibility to make sure your work is held together securely and safely, by pushing the stapler down firmly.

Assignments with unsafe staples will not be marked!