

Celebrating π -day with a π athlon

Daniel M. Look
St. Lawrence University

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π -day

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- The name came first.....we then had to figure out exactly *what* a π athlon was

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- pseudo-inductively it follows that in a π athlon the goal would be to complete exactly* π events....?

* The SLU Mathematics department recognizes the impossibility of completing precisely π events.

Wait... π events??

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- Now that we have a definition, what does it mean to complete exactly π events?
- Clearly it means you complete 3 full events and then 0.14159265.... of a remaining event.

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- Students would then try to earn 314 points to approximate π by intentionally not completing some events

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- It was decided that we would create a bunch of events, each worth 100 points total
- 100 points represents one full event
- Students would then try to earn 314 points to approximate π by intentionally not completing some events
- Luckily, before this went “live” we realized that it would not be that difficult to change the rules allowing enterprising teams to earn partial points.....then making it a race to approximate π to the highest number of decimal places

The Basic Rules

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- Each event has its own point system
- 100 points represents a complete event, even if those points were earned via multiple events
- Each team attempts to complete as close to π events as possible. So the team to score closest to 100π points is the winner

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For example, your team has 320 points. If you earn 6 points you can subtract 6 from 320 giving you 314

Sample Events and Scoring

Basic Math Problems

- Team receives a sheet containing 100 basic math problems

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Basic Math Problems

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- 1 point awarded for each correct answer

Minesweeper

- Teams set the number of bombs to be diffused; no fewer than 20 bombs may be selected

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- 100 points awarded for diffusing all bombs
- For incomplete games, points equal to the proportion of bombs (as percent or decimal) diffused are awarded

π Recitation

- 1 point awarded for each digit of π recited

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- A special prize given to any team capable of reciting 314 digits of π

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- 1 point awarded for each digit of π recited
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- A **very** special prize if they recite all of the digits

Sudoku

- 100 points for a full (error-free) puzzle

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- If the puzzle is not complete (or there are mistakes), points are earned based on the proportion of the puzzle completed (empty boxes at the start divided by correctly filled-in boxes at the end)

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- If the puzzle is not complete (or there are mistakes), points are earned based on the proportion of the puzzle completed (empty boxes at the start divided by correctly filled-in boxes at the end)
- This value can be taken as a percent or a decimal

Sample Events and Scoring

TV

- 100 points for watching the complete math episode of *Look Around You* (roughly 10 minutes)

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TV

- 100 points for watching the complete math episode of *Look Around You* (roughly 10 minutes)
- Any partial viewing earns points determined by the portion of the episode watched (in percent or decimal)

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Just Dance on the Wii

- Any number of team members may participate

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Just Dance on the Wii

- Any number of team members may participate
- At the end of the song, each member has a percent score. Any number of these scores can be added or subtracted in any manner to obtain the points earned, and the scores can be taken as a full percent or a decimal value. Teams will want to figure out which scores they want to use and how they wish to combine them carefully

Sample Events and Scoring

Just Dance on the Wii

- Any number of team members may participate
- At the end of the song, each member has a percent score. Any number of these scores can be added or subtracted in any manner to obtain the points earned, and the scores can be taken as a full percent or a decimal value. Teams will want to figure out which scores they want to use and how they wish to combine them carefully
- Example: My team scores 15%, 56%, 72% and 21%. We choose to use the 15%, 56%, and 21%. We take as our score $56 - 15 - 0.21 = 40.79$ points

And, of course, you need pies



.....lots of pies



Getting Ready



Getting Ready



Strategy is very important



Sudoku



Just Dance







Announcing the winners



Prizes include book store gift certificates and Möbius Band sashes



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Of course, half the fun is making posters....



Monkey Knife Fighting will **not** be an event at the π athlon.

To find out what is, visit the announcements section of the homepage for the Department of Mathematics, Computer Science, and Statistics.

π athlon: Be there or Don't!