

IBL & Mathematical Puzzlehunt Competitions

Legacy of R.L.M. Conference - 2015

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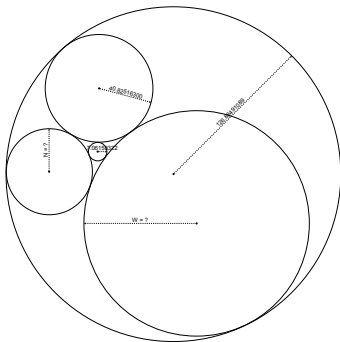
A **puzzlehunt** is a type of scavenger hunt which replaces the list of items to collect with a list of puzzles to solve.

EPP15: Eric's Circle of Friends (March 14, '15 9:26:53am)

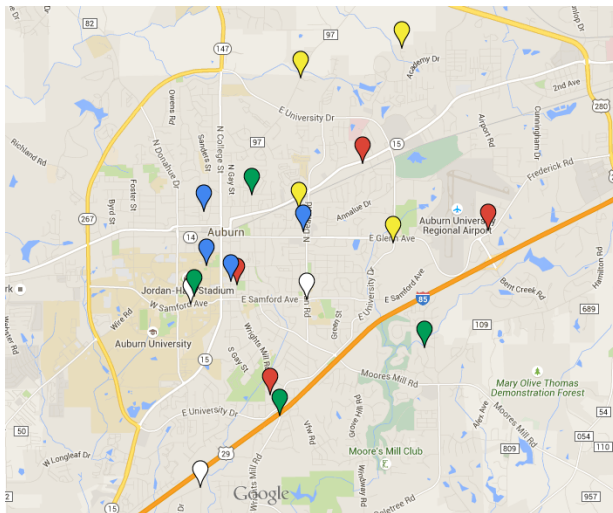
<http://www.ericcharshbarger.org>

Puzzle #18: Kissing Circles

Who says mathematics can't be romantic? Why, here we have several "kissing" circles (they kiss each other by touching at only one point -- that is, tangentially). Figure out the two unknown radii (to at least six decimal places), and you'll learn the puzzle's destination. There you'll find a Numeric Passcode and who knows what other prurient behavior amongst mathematic models.



Locations where EPP15 solutions were found:



Famous puzzlehunts include:

- MIT Mystery Hunt
- Microsoft College Puzzle Challenge
- DASH (Different Area Same Hunt)
- Various “room escape” challenges

The last two seasons of *The Big Bang Theory* have featured episodes about puzzlehunts and room escape games.

Some puzzlehunts are organized by communities of puzzle solvers, and others are sponsored by companies.

Businesses use puzzles in interviews to determine if future employees are able to problem-solve.

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- The solution is (often) not algorithmic.
- Everything is on the page for a reason.
- Solutions are leading somewhere.

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Posing team-based math puzzles support the Common Core Standards for Mathematical Practice.

- Model with mathematics.
- Make sense of problems and persevere in solving them.
- Construct viable arguments and critique the reasoning of others.
- Etc... <http://www.corestandards.org/Math/Practice/>

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- Opening Puzzle

A physical challenge requiring students to run around a green space to collect data required to solve an otherwise quick puzzle.

- Main Puzzles

Teams receive a packet of mathematical puzzles. Each solution unveils a secret message worth points, and solving the riddle within reveals the hidden location of an EXTRA Puzzle.

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Extensions to the main puzzles involving optimization.
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- Build web application to manage the game and allow remote teams to participate
- More elaborate manipulative puzzles
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(tentative logo)

- <http://www.mappmath.org>
- Twitter: @StevenXClontz, @MaPPMath

Questions? Thanks for listening to us!