I U P U I

Math Club Teaser #23

May 1, 2009
(due May 8, 2009)

The eukaryotic Professor Zerep has a Möbius bicycle lock with a ten-digit combination. To remember the combination, the Professor made up a codeword and a list of clues. The codeword is

HYPERBOLIC

and each letter represents a different digit. The clues are

(1) O + O + O = C
(2) P / B = Y
(3) E / O = Y
(4) B + B = P
(5) O × B = RY
(6) O / E = B / P
(7) L + P + I = C + H + R
(8) H × B = YI
(9) E + H = RR
(10) C × O = YL

(RY, YI, RR, and YL are two-digit numbers).

What is the ten-digit combination?

The IUPUI Math Club invites everybody to submit solutions to its weekly recreational mathematics problem. Interested individuals and teams of up to four participants must submit a cover sheet (available at `jagmath.usg.iupui.edu`) together with their written solution. At the end of the semester, every IUPUI student that sent a correct solution will receive a certificate of merit. Prizes will be distributed among the IUPUI undergraduate teams that submit the most correct solutions.

Solutions are due one week after each problem is posted, and should be faxed to (317) 274-3460, dropped off in person at LD 270, or sent by campus or U.S. mail to:

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