

Rockhurst University Mathematics Problem of the Month

Welcome back! The contest is open to any currently enrolled Rockhurst student. The winner will be chosen according to who has the best solution (not just answer) to the problem. Ties will be resolved by considering the order in which the solutions were received.

Solutions should be submitted to Keith Brandt (Richardson 120) by the end of each month. The winners will receive wonderful prizes, so give these problems some thought!

Problems For September 2003:

1. Chris and Pat can run around a 1 mile track in 6 and 10 minutes respectively. If they start at the same instant from the same place, in how many minutes will they pass each other if they run around the track: a) in the same direction; b) in opposite directions?
2. The lines in \mathbf{R}^3 given parametrically by $t(1,2,3) + (4,5,6)$ and $t(1,0,-2) + (3,4,0)$ do not intersect. Find the (minimum) distance between them.