

Given 15 dots on a line,

*.....
two players take turns
placing an X through one
of the dots. The first player
to mark off a dot so that
three consecutive dots are
marked is the winner.
Which player should win -
the one who goes first or
the one who goes second?*

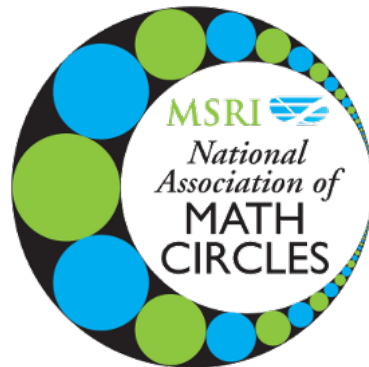
Who can attend?

All students in grade
6-8 with an interest in
math and the ability
to do basic algebraic
manipulations, at
about the level of
algebra 1.

*For current information
check our website*

[www.math.uci.edu/~
mathcircle](http://www.math.uci.edu/~mathcircle)

*or contact Dr. Pantano
at apantano@uci.edu*



MAA
MATHEMATICAL ASSOCIATION OF AMERICA

Afternoon of
mathematical
explorations to
expand your
mathematical
horizons



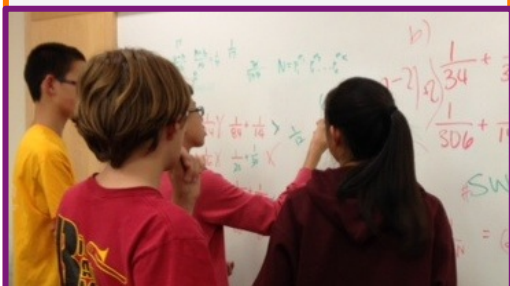
UCI IRVINE | DEPARTMENT OF
MATHEMATICS

The UCI MATH CIRCLE for MS students

A free program for
mathematically
inclined students
designed to enhance
their appreciation of
mathematics and
teach interesting
mathematics
typically not covered
in the traditional
school curriculum



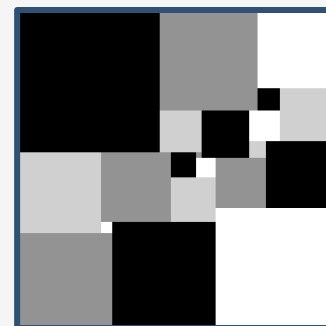
*Pick a number.
Multiply by 3. If the result is odd, add 25.
If it is even, add 34.
The new result will be even. Divide it by 2.
Add 11. Now multiply by 6. Add up the digits in your answer. If the number you obtain contains more than one digit, add the digits again. Continue doing so until you get a one digit result.
Your answer will be 6.
Why?*



In a rather unique way this program wants to give students a first-hand experience of **what doing math is all about**. During the meetings, students are actively engaged in solving challenging open-ended problems, and are encouraged to formulate conjectures and write sound logical arguments to support them. The goal is not speed or accuracy, but developing depth and appreciation.

During the 2014-15 academic year, the UCI Math School for MS Students will meet 5 times every quarter on the UCI campus (typically on Monday 6.30-8pm).

For directions and an up-to-date schedule, please visit the website www.math.uci.edu/~mathcircle



Show that for $n \geq 6$ a square can be dissected into n smaller squares, not necessarily all of the same size.