# New Mathematics System Held Replacement for Geometry

OXFORD, Ohio, May 9 (AP)-A new mathematical science which its discoverer says could-and shouldreplace the entire field of geometry was presented for the first time here today.

Beckham Martin, theoretical' physicist at Owens-Illinois Glass Co. in Toledo, gave mem- tion geometry method, could bers of the Ohio section of the do the problem in two minutes Mathematical Association of as compared to 10 minutes by America a general explanation using all the steps of analytic of his new science, "mutation geometry, geometry."

Martin said mutation geomewell, is a "clean break from: Once a student understands-conventional geometry." The this theory, he said many new process is shorter, easier steps that once had to be to grasp and hold, and pre- written down can be done mensents its answers in more simple form, he said.

## Basic Form

sentation at Miami University, ometry in a sequential order Martin related his new math to A student could start just as forms in analytic geometry.

a problem dealing with an before being exposed to high equation of a circle through school plane or solid geometry, three points. Using conven. Martin has been working on tional methods. 10 steps were his theories for a number of step was needed.

He said mutation geometry try, applicable to fundamental is founded on a single proposiand advanced mathematics as tion, which he cails "Omega."

Since it is based on a single proposition, he said, it is no For the purpose of his pre- longer necessary to take geconic sections, one of the basic easily in the middle of a text forms in analytic geometry, book as the front, he said, and As an example he illustrated could study analytic geometry

necessary for an answer. Using years, applying some of his mutation geometry, only one "short-cut" steps in mathema-sten was needed. tics in high school and coilege Martin estimated that a good courses he has taught. He forcollege student, using his muta-merly was a memoer of the physics department at Purdue University and has instructed in mathematics at Marquette University and the University of Toledo.

## NEW GEOMETRY SYSTEM

A new mathematical science, called "Mutation Geometry" was presented recently in Oxford, Ohio, before the Ohio section of the Mathematical Association of America.

Dr. Beckham Martin, theoretical physicist at Owens-Illinois Glass Company, Toledo, discoverer of the new science, says it is applicable to both fundamental and advanced mathematics and is a clean break from conventional geometry.

Since the system is based on a single proposition, it is no longer necessary to take geometry in sequential order—the student can start in the middle or back of a textbook as well as the front.

It is estimated by Dr. Martin that his mutation method enables a student to work a problem in two minutes as compared to 10 minutes using steps of analytic geometry.

Dr. Martin formerly was a member of the Physics Department at Purdue University and instructor in mathematics at Marquette and the University of Toledo.

# Simple Geometry System Described

OXFORD, Ohio, May 9 (AP)-A new mathematical science which its discoverer says could-and shouldreplace the entire field of geometry was presented for the first time here today.

Beckham Martin, theoretical that nail down the distance physicist at Owens-Illinois; between these points. Giass Co. in Toledo, gave mem- Under Martin's theory, the Mathematical Association of the problem with a mental America a general explanation: note how these coordinates or

Martin said mutation geome- mentally, he said. well, is a "clean break from coordinates this way: conventional geometry." The 3-2-1 new process is shorter, easier 2-1-1 to grasp and hold, and presents its answers in more sim- By mentany uguang sents its answers in more sim- lationship among these coordiple form, he said.

sentation at Miami University, up the answers, he said. Martin related his new math to: Martin said it is not diffi-conic sections, one of the basic cult to teach the basic idea of forms in analytic geometry. his concept of geometry, "alforms in analytic geometry.

ample:

In mathematics, to find a surface.

You solve this problem by in dollars and cents." setting up what are called coordinates of these points. Coordinates are two or more measurements that determine position. For example, latitude and longitude are coordinates that you use to find where you! are on the earth's surface.

With these coordinates, in normal mathematics, you have to take a dozen or more steps to solve three simultaneous; equations-algebra formulas-

bers of the Ohio section of the student is taught to approach of his new science, "mutation boundary lines fit together, geometry." Most of the figuring is done

try, applicable to fundamental He said the student might and advanced mathematics as set up the problem using these

1-0-0

For the purpose of his pre- nates, a simple formula sets

Martin gave this as an ex- though it is totally unorthodox."

He said that it has already plane—a flat surface, that is been practical. He said, "I'm a
— calls for establishment of theoretical physicst and we three points. These points set use it to shorten the time it the boundaries of the plane or takes a computer to do probiems. That makes a difference

## Can New Science Oust Geometry?

A new mathematical science which its discoverer says could THEORY EXPLAINED -and should-replace the entire field of geometry was presented for the first time here geometry:

Dr. Beckham Martin, theoretical physicist at Owens-Illinois Glass Company in Toledo. gave members of the Ohio section of the Mathematical Association of America a general explanation of his new science, ordinates of these points. Co-"mutation geometry."

ometry, applicable to fundamatic; as well, is a "clean break from conventional geometry." The new process is shorter. easier to grasp and hold, and normal mathematics, you have presents its answers in more to take a dozen or more steps simple form, he said,

For the purpose of his presentation at Miami University, Dr. Martin related his new between these points. math to conic sections, one of LESS PAPER WORK the basic forms in analytic geometry.

## ELIMINATES STEPS

equation of a circle through together. Most of the figuring three points. Using conven- is done mentally, he said, tional methods, 10 steps were necessary for an answer. Us- up the problem using these coing mutation geometry, only ordinates this way: one step was needed.

Dr. Martin estimated that a good coilege student, using his mutation geometry method. could do the problem in two lationship among these coordiminutes as compared to 10 nates, a simple formula sets up minutes by using all the steps | the answers, he said. of analytic geometry.

Once a student understands dox." this theory, he said, many steps

proposition. he said, it is no takes a computer to do problonger necessary to take genm. lems. That makes a difference etry before being exposed to in dollars and cents."

OXFORD, Ohio, May 9-48- | high school plane or solid geometry.

Dr. Martin gave this as an example of his new theory of

In mathematics, to find a plane-a flat surface, that iscalls for establishment of three points. These points set the boundaries of the plane or sur-

You solve this problem by setting up what are called coordinates are two or more: Dr. Martin said mutation ce- measures that determine position. For example, latitude and mental and advanced mather longitude are coordinates that: you use to find where you are on the earth's surface.

With these coordinates, in to solve three simultaneous equations -- algebra formulas -that nail down the distance

Under Dr. Martin's theory, the student is taught to approach the problem with a As an example, he illustrated mental note on how these coa problem dealing with an ordinates or boundary lines fit

He said the student might set

3-2-1

2-1-1

1-0-0

By mentally figuring the re-

Dr. Martin said it is not dif-He said mutation geometry ficult to teach the basic idea is found on a single proposi-tion, which he calls "omega." "although it is totally unortho-

He said that it has already that once had to be written been practical. He said, "I'm a down can be done mentally. [theoretical physicist and we Since it is based on a single use it to shorten the time ::