

Congratulations RUSMP!

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RICE UNIVERSITY
SCHOOL MATHEMATICS PROJECT

25 YEARS!!!

What Else was Going on in 1987?

He was a 26 yr. old community organizer.



President Obama

What Else was Going on in 1987?

He was U.S. President.

That year he gave the, “Mr. Gorbachev, tear down this wall” speech.



What Else was Going on in 1987?

Who was the governor of Texas (first Republican governor since Reconstruction)?



Bill Clements

What Else was Going on in 1987?

Who was the mayor of Houston?



Kathy Whitmire

What Else was Going on in 1987?

Who was the superintendent of HISD?



Joan Raymond

What Else was Going on in 1987?

He was a 25 Year old Rockets Star.



Hakeem Olajuwon

What Else was Going on in 1987?

Oilers Quarterback?



Warren Moon

What Else was Going on in 1987?

What was the #1 Song that year?

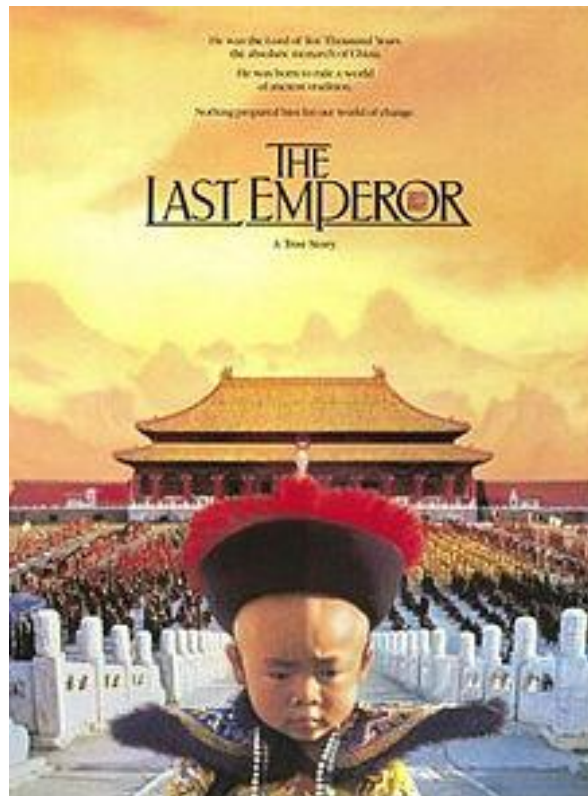


La Bamba by Los Lobos

What Else was Going on in 1987?

What film won the Best Picture Academy Award?

"Broadcast News", "Fatal Attraction", "The Last Emperor", "Hope and Glory", "Moonstruck"



What Else was Going on in 1987?

RUSMP started 3 years before the development of this tool that has dramatically changed the teaching of algebra across the country.



TI-81 graphing calculator

What Else was Going on in 1987?

Had chaired a Select Committee on Education that prompted the Texas legislature to pass a comprehensive education reform law mandating the most sweeping changes in education in Texas in 30 years.

No pass no play
Testing tied to grad.



Essential Elements

Ross Perot

What Else was Going on in 1987?

- In 1987, Texas instituted the Texas Educational Assessment of Minimum Skills (TEAMS) high school graduation exit test for 11th graders.
- In 1990, Texas replaced the TEAMS test with the Texas Assessment of Academic Skills (TAAS).
- In 1993, the Texas Education Agency (TEA) developed and integrated an accountability system for schools.
- In 1998, the Texas Essential Knowledge and Skills (TEKS) replaced the "Essential Elements" as the state's curriculum.
- In 2003(?), the Texas Assessment of Knowledge and Skills (TAKS) replaced the TAAS.
- In 2011, the State of Texas Assessment of Academic Readiness (STARR) replaced the TAKS.
- Etc.

RUSMP Outcomes

Participation

- Over 7000 teacher participants; many have become leaders
- How many students?

Impact

- Due to the Rice University Mathematics Leadership Institute (MLI), the number of teachers with Texas Master Mathematics Teacher (8-12) Certification has increased by more than 50%.
- Students of MLI teachers performed on a higher level on state and national standardized tests than students of other teachers
- Student performance was higher than district-wide performance on TAKS Mathematics in schools whose teachers participated in RUSMP

Reasons for Success

- Leadership
- Quality Instruction

Top Ten Reasons RUSMP has flourished for 25 years

10. Status of Rice University (expectations and pride)
9. Contributions of Rice
8. Contributions of Rice faculty
7. School districts
6. Contributing foundations, industry, and state funding
5. Founding parents' vision
4. Teacher participants giving of time and commitment
3. Master Teachers' great instruction
2. RUSMP staff support and HARD work
1. Anne Papakonstantinou's longstanding leadership

Gotta Do Math – A Math Exploration

No Problem to Solve, Just Have Fun

A **number chain** is created by continuously adding the square of the digits in a number to form a new number until the number generated has appeared before. For example,

4>>>16>>>37>>>58>>>89>>>145>>>42>>>20>>>4

7 >>> 49 >>> 97 >>> 130 >>> 10 >>> 1 >>> 1

55 >>> 50 >>> 25 >>> 29 >>> 85 >>> 89 >>> 145 >>> 42 >>>
20 >>> 4 >>> 16 >>> 37 >>> 58 >>> 89

Generate some of these number chains and write down what you notice or wonder. Of course, look for patterns and see what conclusions you can draw.

For instance, will all numbers appear at the same rate in the number chains, or are there numbers that will occur more often?