

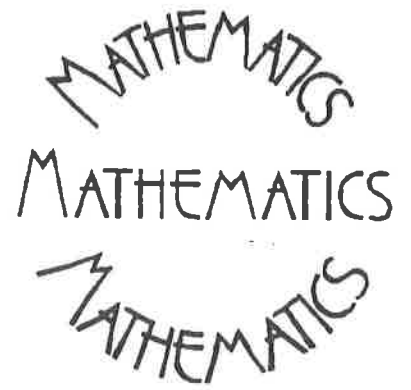


*Math as Art/Math as Science*

**1994  
Washington  
Community College  
Mathematics  
Conference**

**Hosted by South Seattle Community College  
at Silverdale Inn and Resort on the Bay,  
Silverdale, WA.**





WELCOME  
TO THE  
TWENTY-SIXTH ANNUAL  
WASHINGTON COMMUNITY COLLEGE  
MATHEMATICS CONFERENCE  
**'Math as Art/Math as Science'**  
Held April 21-23, 1994  
AT  
THE SILVERDALE INN AND RESORT ON THE BAY,  
SILVERDALE, WA.

Hosted by  
South Seattle Community College  
Mathematics

MARJIE VITUM-JONES  
JERINE RIDGWAY FRANK POST TED COSKEY  
ARLENE ATCHISON SUSAN CHIN  
JAE PAK RUSS KILLINGSWORTH  
DOUG NICHOLS STEVE THOMPSON



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THANK YOU  
THANK YOU  
THANK YOU

## ACKNOWLEDGEMENTS

**Your hosts from South Seattle Community College would like to recognize and thank the following...**

SOUTH SEATTLE COMMUNITY COLLEGE FOUNDATION FOR THEIR CONTINUED SUPPORT.

ROBERTA KATZ, Ed MOYLAN AND CHRISTINE SUSUMI

OLYMPIC COLLEGE FOR THE USE OF THEIR EQUIPMENT

LESLIE STROMBERG AND JANET ZOMBRO, FOR THEIR INVALUABLE WORK

Also, CAROL KNOLLMEYER, DORIS HEISTUMAN-BOX, FELICIA ELLIS  
MICHELLE POST, HOLLY WOODMANSEE, AND MARTIN HAINES

SSCC COMPUTER SERVICES

SCCD FACULTY DEVELOPMENT

SCHEDULE OF EVENTS  
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**MATH CONFERENCE SCHEDULE**

EASTDAY ROOM	HARBOUR ROOM	MARINE ROOM	CORAL ROOM
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**Thursday PM - April 21, 1994**

5:30-7:00 CHECK-IN AND HOTEL REGISTRATION - MAIN LOBBY

7:30-8:30 GUEST SPEAKER - ROBERTA KATZ, SENIOR VICE PRESIDENT & GENERAL COUNSEL FOR MCCAW CELLULAR

**Friday AM - April 22, 1994**

7:30-8:00 BREAKFAST

8:00-8:45 GUEST SPEAKER - Ed Moylan, PRINCIPAL STAFF ENGINEER FOR THE FORD MOTOR COMPANY  
 "MATHEMATICS AS ART"

9:00-9:55	MATH AS ART, SEEN THROUGH EYES OF AN ANCIENT CULTURE- S. NANDAGOPAL	TWO-FACED INTEGER POLYHEDRA, OR GRAPHING $y = \sin x + \cos x$ AND OTHER TRAGEDIES- J. JORDAN	HOW I PIONEERED MAPLE V IN ALASKA- J. KOSTYRKO	WITHDRAWN/EMPTY
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10:00-10:30	MR. NEWTON AND THE SOLVER PROGRAMS- P. HEFT	DOWN THE RIVER WITH THE MATERIAL DERIVATIVE- V. WITTMAN-GRAHIER	USING COOPERATIVE LEARNING TO TEACH INTERMEDIATE ALGEBRA- B. POOLE	MATHEMATICS- A CREATIVE ART FORM- S. HINTHORNE
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10:35-11:00 BREAK

11:05-12:00	THE GEOMETRY OF MULTIVARIABLE CALCULUS PRES. BY NSF PARTICIPANTS- Y. NIEVERGELT	WRITING ASSIGNMENTS IN THE FRESHMAN MATH CLASSROOM 'ISSUES AND ANSWERS'- Sid SMITH	CALCULUS AND 'NEWTON'S METHOD' IN THE 18TH CENTURY- I. YPMA	ROTATIONS AND JULIA SETS THROUGH PLANAR GEOMETRY- E. AMIRON
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**Friday PM - April 22, 1994**

12:15-1:15 LUNCH

1:30-2:25	ASSESSMENT TOOLS FOR THE REFORMED MATH CLASSROOM- J. ERICKSON	THOSE AMAZING FIBONACCI NUMBERS- J. FRANCIS	CALCULATOR SPECIFIC COURSES AND WHY WE SHOULD HAVE THEM- F. POST / C. JENKIN	ART AND SCIENCE IN THE EARLY HISTORY OF THE CALCULUS- T. MORRISON
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2:30-3:25	HOW DO THE NCTM STANDARDS AFFECT ME? - R. KILLINGSWORTH	THE PRECALCULUS REVITALIZATION PROJECT REVISITED- C. SWANSON / J. RAY	INTERMEDIATE ALGEBRA, AN OPEN FORUM DISCUSSION- I. GRANATA	EMPTY
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3:30-4:00 BREAK

4:05-5:00 MEETINGS		2 - YEAR COLLEGES PHIL HEFT - PRESIDER		4 - YEAR COLLEGES PRESIDER T.B.A
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6:30-7:15 DINNER

7:15-8:00 GUEST SPEAKER - Ed Moylan, PRINCIPAL STAFF ENGINEER FOR THE FORD MOTOR COMPANY  
 "MATHEMATICS AS SCIENCE"



MATH CONFERENCE SCHEDULE

EASTAV ROOM	HARBOUR ROOM	MARINE ROOM	CORAL ROOM
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Friday AM - April 23, 1994

7:30-8:00 BREAKFAST

8:00-8:45 GUEST SPEAKER - CHRISTINE SUSUMI, DVM, VETERINARIAN FOR RAINIER VETERINARY HOSPITAL  
SPONSORED BY WAMATYC

9:00-9:55	YOU DON'T HAVE TO BE A MAPLE EXPERT TO USE MAPLE IN THE CLASSROOM- R. PUGH	PROGRAMMING THE TI-85 - H. SCHOTT	THE ORIGIN OF BUGLES, CASTING A MOVIE, AND OTHER WORD PROBLEMS- D. HEMME	"INTEGRATING ACADEMICS" PROJECTS [incl. voc./appl. MATH]- M. HAINES
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10:00-10:30	ANIMATING LINEAR TRANSFORMATIONS- M. PARKER	USE OF LANGUAGE METAPHOR IN ALGEBRA INSTRUCTION- S. MALINSKY	AN EXAMPLE OF ALGEBRA IN LAKE ROOSEVELT- G. NORD	DEVELOPMENT OF MATHEMATICAL IDEAS IN INDIA- S. LUKE
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10:30-11:00 BREAK CHECK-OUT OF ROOMS

11:05-12:00	CHANGES IN THE CALCULUS SEQUENCE AT THE UW- N.Koblitz, C. CORJEL, E. DUCHAMP AND K. PLOCHINSKI	EXPLORING CALCULUS WITH MATHKIT- J. RAY	A FRESH LOOK AT THE QUADRATIC EQUATION- J. KOSTYRKO	UPDATE ON QUANTITATIVE SKILLS ASSESSMENT PROJECT- B. MONTGOMERY
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Saturday PM - April 23, 1994

12:05-1:00 LUNCH - BOXED FOR THOSE ON THE GO...

ALTERNATE SATURDAY SPEAKER	CHAOS AND CRYPTOGRAPHY- S. URAL
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END OF 1994 WCC MATH CONFERENCE  
NEXT YEAR- SKAGIT VALLEY CC / WHATCOM CC.  
FOR MORE INFO, CONTACT--

DOUG MOOERS AT WHATCOM CC, OR  
PHIL GREEN AT SKAGIT VALLEY CC [MT. VERNON CAMPUS] OR  
SUSAN INDORF AT SKAGIT VALLEY CC [OAK HARBOR CAMPUS]



THIS YEAR WE ARE HONORED TO HAVE THREE DIVERSE AND HIGHLY ACCLAIMED GUEST SPEAKERS EACH WITH A TIE TO MATHEMATICS.

THURSDAY, APRIL 21, 1994 AT 7:30 PM IN THE CONFERENCE DINING AREA:

"MATHEMATICS: My Plumb line"

A LOOK AT HOW THE SPEAKER HAS USED MATHEMATICS IN VARIOUS PHASES OF HER LIFE AS AN ANTHROPOLOGIST AND LAWYER.

PRESENTED BY: ROBERTA R. KATZ, VICE PRESIDENT AND GENERAL COUNSEL,  
McCAW CELLULAR COMMUNICATIONS, INC.

ROBERTA HAD A PRIVATE LEGAL PRACTICE FOR ELEVEN YEARS. IN 1992, SHE WAS NAMED SENIOR VICE PRESIDENT AND GENERAL COUNSEL FOR LIN BROADCASTING CORPORATION. IN MARCH OF LAST YEAR SHE BECAME SENIOR VICE PRESIDENT AND GENERAL COUNSEL FOR McCAW CELLULAR COMMUNICATIONS, INC.. HER EDUCATION INCLUDES: A B.A. WITH GREAT DISTINCTION FROM STANFORD UNIVERSITY; A PH.D IN ANTHROPOLOGY FROM COLUMBIA UNIVERSITY; AND J.D. WITH HIGH HONORS FROM THE UNIVERSITY OF WASHINGTON SCHOOL OF LAW.

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FRIDAY, APRIL 22, 1994 AT 8:00 AM AND AT 7:15 PM

AM PRESENTATION: "MATHEMATICS AS ART"

AUTOMOTIVE PRODUCT DEVELOPMENT INVOLVES BOTH THE ART OF THE VEHICLE DESIGN AND THE SCIENCE OF ENGINEERING. THERE ALSO IS AN ART IN KNOWING WHICH MATHEMATICAL TOOLS TO USE AND HOW TO PRESENT THE RESULTS FOR INTERPRETATION. MANY EXAMPLES DIRECTLY RELATE TO THE COMMUNITY COLLEGE CURRICULUM.

PM PRESENTATION: "MATHEMATICS AS SCIENCE"

DEVELOPING AESTHETIC AUTOMOTIVE USE OF ADVANCED TECHNOLOGIES, SUCH AS SUPERCOMPUTING, DYNAMIC VISUALIZATION, AND RAPID PROTOTYPING. EFFECTIVE APPLICATIONS OF THESE TECHNOLOGIES OFTEN DEPEND UPON ELEMENTARY, BUT SUBTLE, MATHEMATICAL METHODS.

PRESENTED BY: EDWARD F. MOYLAN, PRINCIPAL STAFF ENGINEER,  
FORD MOTOR COMPANY

ED HAS WORKED FOR FORD MOTOR COMPANY FOR TWENTY-SEVEN YEARS IN CAD, MANUFACTURING, AND ENGINEERING. FOR THREE YEARS, HE INSTRUCTED FULL-TIME AT THE UNIV. OF WISCONSIN, CENTER SYSTEM. HIS EDUCATION INCLUDES: A B.S. IN MATHEMATICS AND PHYSICS AND AN M.A. IN MATHEMATICS FROM THE UNIV. OF DETROIT; AN M.B.A. FROM THE UNIV. OF MICHIGAN.

SATURDAY, April 23, 1994 AT 8:00 AM IN THE CONFERENCE DINING AREA  
UNIQUE IDEAS RELATED TO MEDICINE USED TO HELP MOTIVATE MATH  
STUDENTS (SPONSORED BY WAMATYC)

THE OBJECTIVES OF THIS PRESENTATION ARE TO PROVIDE UNIQUE IDEAS  
RELATED TO MEDICINE TO HELP MOTIVATE MATH STUDENTS. VARIOUS LEVELS  
OF MATH WILL BE DISCUSSED FROM ARITHMETIC TO CALCULATE DRUG  
DOSAGES; VECTOR ANALYSIS TO INTERPRET ELECTROCARDIOGRAMS; PHYSICS,  
WAVE ANALYSIS, CALCULUS TO UNDERSTAND X-RAYS, ULTRASOUND, CAT SCANS  
AND MRIS. IF STUDENTS UNDERSTAND THAT MATH IS THE FOUNDATION OF  
SCIENCE AND TECHNOLOGY, THEY WILL REALIZE THE IMPORTANCE OF LEARNING  
MATH AND ITS APPLICATIONS.

PRESENTED BY: CHRISTINE J. SUSUMI, DVM  
RAINIER VETERINARY HOSPITAL

CHRISTINE HAS BEEN A DVM AT RAINIER VETERINARY HOSPITAL SINCE 1987. HER  
EDUCATION INCLUDES: A B.S. IN BIOLOGY FROM WASHINGTON STATE UNIVERSITY;  
A M.S.E. IN BIO-ENGINEERING FROM UNIVERSITY OF WASHINGTON; AND EARNED  
HER DVM FROM WASHINGTON STATE UNIVERSITY. SHE HAS BEEN WELL RECEIVED  
BY MATHEMATICS INSTRUCTORS BEFORE, HAVING MADE A PRESENTATION AT THE  
AMATYC CONFERENCE IN SEATTLE.

Friday AM  
9-9:55

EASTDAY	SREE NANDAGOPAL	SHORELINE CC
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"MATHEMATICS AS ART SEEN THROUGH THE EYES OF AN ANCIENT CULTURE."  
THE MEANING OF TESSALLATIONS IN AN ANCIENT CULTURE WILL BE BROUGHT OUT IN THIS PRESENTATION. HOW DID IT START? WHAT IS THE DEEPER MENAING? THIS CAN BE USED AS ONE OF THE TOPICS IN THE "MATHEMATICS FOR LIBERAL ARTS" CLASS.

HARBOUR	JAMES JORDAN	WA. STATE UNIV.
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"TWO-FACED INTEGER POLYHEDRA OR GRAPHING  $y = \sin^2 x + \cos^2 x$  AND OTHER TRAGEDIES"  
POLYHEDRA WHERE THE DISTANCES BETWEEN ANY TWO VERTICES IS OF INTEGER LENGTH ARE CALLED INTEGER POLYHEDRA. EXAMPLES OF TETRA, PENTA, HEXA, HEPTA, ORTA, ENNEA, DECA, AND DODECA - HEDRA ARE DISPLAYED.

MARINE	JACEK KOSTYRKO	KENAI PENINSULA COLLEGE
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"HOW I PIONEERED MAPLE V IN ALASKA."  
THE STORY OF INTRODUCING MAPLE V IN THE "LAND OF THE LAST FRONTIER."

CORAL	EMPTY/WITHDRAWN
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10-10:55

EASTDAY	PHIL HEFT	GREEN RIVER COMM. COLLEGE
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"MR. NEWTON AND THE SOLVER PROGRAMS."  
NO DESCRIPTION PROVIDED.

HARBOUR	VAUHN WITTMAN-GRAHLER	WESTERN WASHINGTON UNIV.
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"DOWN THE RIVER WITH MATERIAL DERIVATIVE."  
I WILL GIVE EXAMPLES OF SOME APPLICATIONS OF THE MATERIAL DERIVATIVE AND SHOW HOW IT IS USED IN EULER'S EQUATIONS FOR COMPRESSIBLE AND INCOMPRESSIBLE FLUIDS.

MARINE	BARBARA POOLE	NORTH SEATTLE COMM. COLL.
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"USING COOPERATIVE LEARNING TO TEACH INTERMEDIATE ALGEBRA."  
(PRESENTED AT AMATYC- BOSTON).  
THE SPEAKER WILL DISCUSS HER EXPERIENCES IN USING COOPERATIVE LEARNING TO TEACH ALGEBRA. ATTENDANCE POLICIES, SAMPLE PROJECTS, GRADE COMPARISONS AND STUDENT REACTIONS WILL BE GIVEN.

CORAL	STEVE HINTHORNE	CENTRAL WASHINGTON UNIV.
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"MATHEMATICS - A CREATIVE ART FORM."  
A 30 MINUTE DISCUSSION OF THE FOLLOWING QUESTIONS:  
IS MATHEMATICS DISCOVERED OR CREATED? DOES IT DESCRIBE TRUTH OR IS IT MERELY A GAME? HOW CAN MATHEMATICS BE SEEN AS AN ART FORM? HOW IS A THEOREM LIKE A

sculpture? WHAT MAKES IT BEAUTIFUL OR NOT SO BEAUTIFUL? IS MATHEMATICS ONLY good because it is useful?

11:05-12:00

EASTDAY

YVES NIEVERGELT

EASTERN WASHINGTON UNIV.

"THE GEOMETRY of multivariable Calculus:  
PRESENTATIONS by NSF PARTICIPANTS.

MATHEMATICS INSTRUCTORS FROM COMMUNITY COLLEGES AND OTHER COLLEGES will PRESENT MATERIAL THAT THEY DEVELOPED WHILE PARTICIPATING IN WORKSHOPS SPONSORED BY NSF. INFORMATION ON SIMILAR WORKSHOPS IN JUNE AND SEPTEMBER will be AVAILABLE. TOPICS INCLUDE 3D GRAPHICS, SPLINES, AND DIFFERENTIAL EQUATIONS IN SEVERAL VARIABLES.

HARBOUR

BECKER(SID) SMITH

CENTRAL WASHINGTON UNIV.

"WRITING ASSIGNMENTS IN THE FRESHMAN MATHEMATICS CLASSROOM - ISSUES AND ANSWERS."

THE PRESENTER HAS FOUND THE USE OF WRITING ASSIGNMENTS IN THE MATH CLASSROOM ENHANCES THE STUDY OF ASSIGNED CURRICULA, MOTIVATES STUDENT INTEREST, AND HELPS STUDENTS DEVELOP A CONTEXT FOR THIS STUDY. METHODS AND PRINCIPLES WILL BE DISCUSSED.

MARINE

TJALLING YPMA

WESTERN WASHINGTON UNIV.

"CALCULUS AND "NEWTON'S METHOD" IN THE 18TH CENTURY."

NEITHER NEWTON NOR RAPHSON USED CALCULUS IN THEIR FORMULATION OF THE "NEWTON-RAPHSON METHOD". WE SHOW HOW SIMPSON AND LAGRANGE CONTRIBUTED TO THE CURRENT CALCULUS - BASED FORMULATION OF THE METHOD.

CORAL

EDOH AMIRAN

WESTERN WASHINGTON UNIV.

"ROTATION NUMBERS AND JULIA SETS THROUGH PLANNAR GEOMETRY."

FOR CERTAIN MAPS, THE INVERSE IMAGES OF RECTANGLES AND THE ROTATION NUMBER OF THE MAP NEAR A FIXED POINT GIVE A GOOD DESCRIPTION OF THE MAP'S BEHAVIOR. PLANAR GEOMETRY AND DIFFERENTIABILITY ARE ALL WE NEED.

Friday PM

1:30 - 2:25

EASTDAY

JIM ERICKSON

PIERCE COLLEGE

"ASSESSMENT TOOLS FOR THE REFORMED MATHEMATICS CLASSROOM."

THE PARADIGM FOR TEACHING AND LEARNING MATHEMATICS HAS CHANGED CONSIDERABLY IN RECENT YEARS AND AS A RESULT, ASSESSMENT MUST CONSIST OF MORE THAN TWO 1-HOUR EXAMS AND A FINAL. THIS PRESENTATION WILL PROVIDE A POTPOURRI OF ASSESSMENT TECHNIQUES APPROPRIATE FOR ALL COURSE IN THE MATHEMATICS CURRICULUM.

HARBOUR	JIM FRANCIS	Edmonds COMM. College
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"THOSE AMAZING FIBONACCI NUMBERS!"

SO SIMPLE:  $1 + 1 = 2$ ,  $1 + 2 = 3$ ,  $2 + 3 = 5$ , ETC. YET SO FASCINATING AND MATHEMATICALLY RICH - ENOUGH TO HAVE AN ENTIRE MATHEMATICAL JOURNAL AND SEVERAL INTERNATIONAL CONFERENCES DEDICATED TO THEM! THIS ACCESSIBLE TALK IS INTENDED TO ENTERTAIN, ENLIGHTEN AND PERHAPS EVEN SURPRISE YOU.

MARINE	FRANK POST/CHRIS JENKIN	SOUTH SEATTLE COMM. COLLEGE
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"CALCULATOR SPECIFIC COURSES AND WHY WE SHOULD HAVE THEM(AND HOW STUDENTS CAN HELP)."

ALLOWING ALL COMERS IN THE GRAPHIC CALCULATOR WORLD IS CHAOTIC. THIS TALK WILL BE AN OPEN FORUM (YET ORGANIZED) ON HOW CHOOSING A SPECIFIC CALCULATOR CAN RELIEVE THE CHAOS. WE WILL DISCUSS HOW STUDENTS CAN MAKE THIS HAPPEN."

CORAL	TIM MORRISON	UNIVERSITY OF WASHINGTON
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"ART AND SCIENCE IN THE EARLY HISTORY OF THE CALCULUS."

THE DISCOVERY OF THE BRACHISTOCCHRONE. MATH IN THIS TALK COULD BE ACCESSIBLE TO CALCULUS STUDENTS, AND THE HISTORY IS INTERESTING AND ENLIGHTENING. THE CYCLOID IS A CURVE THAT IS EASY TO DESCRIBE AND WITH THE HELP OF CALCULUS, EASY TO WORK WITH. BUT IT WAS THE SOURCE OF MANY CHALLENGING PROBLEMS, NOT TO MENTION BITTER DISPUTES, FOR 17TH CENTURY MATHEMATICIANS. I WILL GIVE A BRIEF SKETCH OF THE ROLE IT PLAYED IN THE FORMATION OF THE CALCULUS. THE TALK WILL BE EQUAL PARTS HISTORY AND MATHEMATICS.

2:30 - 3:25

EASTBAY	RUSS KILLINGSWORTH	SOUTH SEATTLE COMM. COLLEGE
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"HOW DO THE NCTM "STANDARDS" AFFECT ME?"

THE PREPARATION OF NEW MATHEMATICS TEACHERS WILL BE DISCUSSED IN LIGHT OF THE NCTM STANDARDS. RECENT ISSUES IN ASSESSMENT AND EVALUATION WILL ALSO BE EXAMINED. WHAT WILL THEIR CLASSROOM LOOK LIKE AND HOW COULD IT AFFECT YOU?

HARBOUR	JANET RAY/CARL SWENSON	SEATTLE CENTRAL/SEATTLE UNIV.
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"THE PRECALCULUS REVITALIZATION PROJECT REVISITED."

A BRIEF DESCRIPTION OF THE PRECALCULUS SOURCEBOOK. PLEASE BRING NEW ADDITIONS AND ERRORS FOUND. A DISCUSSION OF SUCCESSFUL ACTIVITIES FOR PRECALCULUS CLASSES.

MARINE	TONY GRANATA	PIERCE COLLEGE
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"INTERMEDIATE ALGEBRA: AN OPEN FORUM DISCUSSION."

THIS FORUM IS MEANT TO ADDRESS THE ISSUE OF COURSE CONTENT AND CLASSROOM STRUCTURE IN INTERMEDIATE ALGEBRA COURSES. PARTICIPANTS ARE FREE TO SHARE THEIR IDEAS ON HOW TO IMPROVE COURSE CONTENT AND MAKE THE COURSE MORE ENJOYABLE FOR STUDENTS AND INSTRUCTORS.

CORAL	EMPTY	
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4:05 - 5:00

HARBOUR Phil Heft, PRES. TWO YEAR COLLEGES

BUSINESS OF TWO YEAR COLLEGES WILL BE DISCUSSED

CORAL I.B.A.- FOUR YEAR COLLEGES

BUSINESS OF FOUR YEAR COLLEGES WILL BE DISCUSSED

SATURDAY AM

9:00 - 9:55

EASTBAY ROSE PUGH BELLEVUE COMM. COLLEGE

"YOU DON'T HAVE TO BE A MAPLE EXPERT TO USE MAPLE IN THE CLASSROOM."  
PRESENTATION OF WAYS TO INCORPORATE MAPLE INTO THE CALCULUS CLASSROOM.  
DEMONSTRATION OF MAPLE PROJECT FOR MULTI-VARIABLE CALCULUS STUDENTS.

HARBOUR HANNA SCHOTT KENAI PENINSULA COLLEGE

"PROGRAMMING THE TI-85"  
THIS PRESENTATION IS DESIGNED FOR PERSON WITH NO PROGRAMMING BACKGROUND OR FOR INSTRUCTOR WHO MAY WANT TO TEACH PROGRAMMING ON THE TI-85 TO STUDENTS WITH NO PROGRAMMING EXPERIENCE. BRING YOUR OWN CALCULATOR.

MARINE DAVID HEMME HIGHLINE/SHORELIN COMM. COLL.

"THE ORIGIN OF BUGLES, CASTING A MOVIE AND OTHER WORD PROBLEMS."  
NO DESCRIPTION PROVIDED.

CORAL MARTIN HAINES OLYMPIC COLLEGE

"INTEGRATING ACADEMICS" PROJECTS (INVOLVING VOCATIONAL/APPLIED MATH)  
INFORMAL INFORMATION - SHARING MEETING CONCERNING PROJECTS UNDERWAY UNDER STATE BOARD "INTEGRATING ACADEMICS" GRANTS. SPEAKER WILL DESCRIBE OC VOCATIONAL MATH PROJECT; OTHERS INVITED TO SHARE INFORMATION INFORMALLY.

10:00 - 10:30

EASTBAY MARK PARKER SHORELINE COMM. COLLEGE

"ANIMATING LINEAR TRANSFORMATIONS."  
LINEAR TRANSFORMATIONS LIE AT THE HEART OF A COURSE IN LINEAR ALGEBRA. PROJECTIONS, ROTATIONS, REFLECTIONS, AND OTHERS CAN BE REPRESENTED IN MATRIX FORM. THEORIST, A COMPUTER MATHEMATICS PROGRAM, CAN BE USED TO BRING A VISUAL COMPONENT TO STUDENTS' UNDERSTANDING OF LINEAR TRANSFORMATIONS.

HARBOUR SASHA MALINSKY BELLEVUE COMM. COLLEGE

"USE OF LANGUAGE METAPHOR IN ALGEBRA INSTRUCTION."  
I WANT TO OFFER SOME REFLECTIONS ON PRESENTING ALGEBRA AS A LANGUAGE AS A WAY OF MOTIVATING STUDENTS AND HELPING THEM CONCEPTUALIZE THEIR STUDY. A BRIEF DISCUSSION OF THE METAPHOR'S LIMITATIONS WILL BE INCLUDED.

MARINE Gail Nord GONZAGA UNIVERSITY

"AN EXAMPLE OF ALGEBRA IN LAKE ROOSEVELT (APPLICATION OF MATH WITH ENVIRONMENTAL ISSUES)"

EXAMPLES IN ALGEBRA WILL BE GIVEN THAT LINK MATHEMATICS WITH ENVIRONMENTAL ISSUES.

CORAL STANLEY D. LUKE SOUTH SEATTLE COMM. COLLEGE

"DEVELOPMENT OF MATHEMATICAL IDEAS IN INDIA."

A BRIEF HISTORY OF MATHEMATICS IN INDIA DURING DIFFERENT PERIODS WITH THE NAMES OF MATHEMATICIANS, BEGINNING WITH 8TH CENTURY BC.

11:05 - 12:00

EASTDAY Neal Koblitz/Casper Curjel/ UNIVERSITY OF WASHINGTON  
KEN PLOCHINSKI/TOM DUCHAMP

"CHANGE IN THE CALCULUS SEQUENCE AT THE UW."

PANEL DISCUSSION.

HARBOUR JANET RAY SEATTLE CENTRAL COMM. COLLEGE

"EXPLORING CALCULUS CONCEPTS WITH MATHKIT."

A NEW SOFTWARE PACKAGE, MATHKIT, ALLOWS INSTRUCTORS TO DESIGN EXPLORATORY EXPERIENCES TO INCREASE UNDERSTANDING. THE SOFTWARE WILL BE DEMONSTRATED AND ITS UTILITY DISCUSSED.

MARINE JACEK KOSTYRKO KENAI PENINSULA COLLEGE

"A FRESH LOOK AT THE QUADRATIC EQUATION."

SOME SURPRISING PROPERTIES OF THE QUADRATIC EQUATION WILL BE DISCUSSED.

CORAL BECKY MONTGOMERY STATE BOARD OF COMM. & TECH COLLEGES  
"UPDATE ON QUANTITATIVE SKILLS ASSESSMENT PROJECT - WORK OF 1993-94."

[REQUESTING INPUT FOR THE FUTURE]

ANYTHING HAPPENING WITH DEVELOPMENTAL MATH, NEW TECHNOLOGY, MANIPULATIVES AND PHYSICAL MODELS, STUDENT PRESENTATIONS AND OR WRITING.

ALTERNATE- SAJM URAL WESTERN WASHINGTON UNIV.

"CHAOS AND CRYPTOGRAPHY"

THE USE OF CHAOTIC FUNCTIONS TO SECURE COMMUNICATIONS WILL BE DISCUSSED.

ABSTRACTS OF SPEAKERS  
ABSTRACTS OF SPEAKERS  
10  
ABSTRACTS OF SPEAKERS



# HISTORY OF THE WASHINGTON COMMUNITY COLLEGE MATHEMATICS CONFERENCE

OUR HISTORY

OUR HISTORY

OUR HISTORY

<u>YEAR</u>	<u>HOST COLLEGE</u>	<u>LOCATION</u>
1994	SOUTH SEATTLE C.C.	SILVERDALE
1993	HIGHLINE C.C.	WENATCHEE
1992	YAKIMA C.C.	YAKIMA
1991	PIERCE COLLEGE/TACOMA C.C..	LAKE CHELAN
1990	CLARK COLLEGE	ALDERBROOK
1989	BELLEVUE C.C.	LAKE CHELAN
1988	OLYMPIC COLLEGE	PORT LUDLOW
1987	LOWER COLUMBIA C.C.	ALDERBROOK
1986	NORTH SEATTLE C.C.	ALDERBROOK
1985	SHORELINE C.C.	SUN MOUNTAIN
1984	GREEN RIVER C.C.	ALDERBROOK
1983	OLYMPIC COLLEGE	PORT LUDLOW
1982	HIGHLINE C.C.	LAKE CHELAN
1981	SPOKANE FALLS C.C.	SUN MOUNTAIN
1980	SPOKANE FALLS C.C.	SUN MOUNTAIN
1979	OLYMPIC COLLEGE	PORT LUDLOW
1978	EDMONDS C.C.	PROVIDENCE HTS.
1977	SHORELINE C.C.	PROVIDENCE HTS.
1976	BELLEVUE C.C.	SNOQUALMIE PASS
1975	HIGHLINE C.C.	PROVIDENCE HTS.
1974	SHORELINE C.C.	LAKE WILDERNESS
1973	SEATTLE CENTRAL C.C.	SNOQUALMIE PASS
1972	EVERETT C.C.	SNOQUALMIE PASS
1971	EVERETT C.C.	SNOQUALMIE PASS
1970	SPOKANE FALLS C.C.	THE LODGE [AT ASHFORD]
1969	GREEN RIVER C.C.	THE LODGE [AT ASHFORD]

**NEXT**

**1995**      **SKAGIT VALLEY C.C./WHATCOM C.C.**

The first Washington Community College Mathematics Conference/Retreat was held at 'The Lodge' at Ashford, and required the 33 participants to pay \$16.68 each. They brought sleeping bags! The organizers were Phil Heft, Larry Larson, Jim Reif, and John VanDruff.



BELLEVUE CC

MARILYN  
LARRY  
BARBARA  
KAREN  
PRESTON  
SUSAN  
BERTHE  
DALE  
PAMELA  
SASHA  
LINDA  
ROSE L.  
PETER  
JIM  
LYNNE  
DAVID  
LARRY  
MARILYNN  
DEBORAH  
DANA M.  
ANDERSON  
CURNUTT  
DYER  
GRAMLING  
GRAMLING  
GRONLUND  
HABIB  
HOFFMAN  
LOWRY  
MALINSKY  
NAGLE  
PUGH  
RATENER  
RELF  
SAGE  
STACY  
SUSANKA  
TOBER  
UMMEL  
UPDEGROVE

CENTRAL WASHINGTON UNIV.

AMY  
CHERIE  
WENDY  
KEITH  
DIANNE  
PAT  
MING-LI  
DIANE  
GLENN  
JAMES D.  
STEVE  
BECKER (SID)  
ANDY  
RICK  
ANDERSON  
JUSZCZYK  
MAYBIN  
MEERS  
MEYER  
RYCKMAN  
SHEN  
VAUGHAN  
WHITE  
HARPER  
HINTHORNE  
SMITH  
TOOP  
WOODMANSEE

CLARK COLLEGE

KRISTINE  
PAUL  
TONI  
MARK  
MARINA  
LOUISE  
BILL  
WES  
BRUCE  
CLAUDIA  
DENNIS W.  
BARKER  
CASILLAS  
COWEN  
ELLIOTT  
FROST  
HOOVER  
MONROE  
ORSER  
RANSOM  
RANSOM  
WATSON

EASTERN WASHINGTON UNIV.

YVES  
NIEVERGELT  
Edmonds CC  
DAVID  
JIM  
BARBARA  
STEPHANIE  
BRENDA  
JADWIGA  
BRYAN  
STEVE  
ADAMS  
FRANCIS  
MALY  
SIMMONS  
TOMULTY  
WEYANT  
JOHNS  
BOGART

EVERETT CC

KEITH  
SUSAN  
JEAN  
NANCY  
HEIDI  
ALFORD  
CROSS  
JIANG  
WAHL  
WEISS-GREEN

GONZAGA UNIVERSITY

GAIL  
NORD  
Grays Harbor College  
TRISH  
GWEN  
LYNN  
DUTRO  
HYATT  
SIEDENSTRANG

GREEN RIVER CC

DAVID  
DIANE  
CHRISTIE  
SALLY  
DONNIE  
PHIL  
STEVE  
LARRY  
LAURA  
DOUGLAS  
BENDER  
BUTCHER-EVANS  
GILLILAND  
GLOVER  
HALLSTONE  
HEFT  
KINHOLT  
LARSON  
MOORE-MUELLER  
PETERSON

HIGHLINE CC

DIANA  
RON  
JEREMY  
DAVID J.  
BRIAN  
ED  
ED  
DICK  
ALLAN  
JOE  
BENDER  
BURKE  
GUP  
HEMME  
HOGAN  
MORRIS  
NEWELL  
PLAGGE  
WALTON  
WILCOX

KENAI PENINSULA COLLEGE

JACEK  
HANNA  
KOSTYRKO  
SCHOTT

LAKE WASH. TECH. COLLEGE

SHARON  
BUCK

LOWER COLUMBIA COLLEGE

DIANE  
WILLIAM N.  
FULLER  
FULLER

Mt. Hood CC

GARY  
GRIMES

NORTH IDAHO COLLEGE

SUSANNE  
EDWINA  
LOHR  
STOWE

NORTH SEATTLE CC

EARL  
PAM  
BARBARA  
ROBERT F.  
HARRY  
HAMILTON  
LIPPERT  
POOLE  
TIGHE  
WATTS

MPIC College

SHAHID	AHMED
ANN	BRACKEBUSCH
MIKE	Coffey
MIKE	DODGE
MARTIN	HAINES
LEO	MAKI
BEVERLY	MESEROLL
PAUL	MIDDENTS
SCOTT	NIVEN
DAVE	SICKS

Skagit Valley College

Phil	GREEN
Dick	HUFFMAN
SUSAN	INDORF
TINA	SCHAFFNER
CHUCK	STEVENS

TACOMA CC

SUE	BUTSCHUN
KAREN	CLARK
MIKE	FLODIN
RHODA H.	GAGE
RICHARD	GANNS
ROBERT	TAN
TRUNG G.	TRAN

SOUTH SEATTLE CC

ARLENE	ATCHISON
SUSAN	CHIN
Ted	COSKEY
CHRIS	JENKIN
DANI	KILLINGSWORTH
Russ	KILLINGSWORTH
Stanley D.	LUKE
Douglas	Nichols
JAE	PAK
FRANK W.	POST
Michelle	POST
JERINE	RIDGWAY
STEVE	THOMPSON
MARJIE	VITUM-JONES

UNIV of Puget Sound

ROSEMARY	HIRSCHFELDER
BARBARA	PRICE

PENINSULA CC

KENT	BRAUNINGER
MARJORIE	LINDBERG

UNIV of WASHINGTON

CASPER	CURJEL
TOM	DUCHAMP
NEAL	Koblitz
TIM	MORRISON
KEN	POCHINSKI

PIERCE College

DIANE	DOWNIE
JIM	ERICKSON
	FALCIONI
	GRANATA
TOM	JEPSEN
MICHAEL	LAMKA
HAN	LIM
TOM	PHelps
JOHN	VAN DRUFF

Spokane CC

SREEDHARANI	NANDAGOPAL
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WASHINGTON STATE UNIV.

JAMES H.	JORDAN
----------	--------

Spokane Falls CC

LUANNE	ALWARD
PAUL	BLADEK
KIALYNN	GLUBRECHT
Rudy	GUNAWAN
BARBARA	HARRAS
BETTE	HUMPHREY
CURT	HUMPHREY
KATHY	LARSON
ROBERT	MCGREGOR
LARS	NEISES
NICK	NICKOLFF
KAREN	OLSON
KEVIN	OLSON

WESTERN WASHINGTON UNIV

BETTY ANN	REAY
SAM	URAL
Edoh	AMIRAN
JAMES	DUEMMEL
DAVE	HIMES
SUSAN Blondell	Kaplan
Todd	LENGACHER
NORM	LINDQUIST
JOHN	REAY
DONNA Fields	ROCHON
KATIE	STABLES
Jeff	STADY
Bridget	WISNIEWSKI
VAUHN	WITTMAN-GRAHLER
BETH	WOOD
TJALLING	YpMA

SEATTLE CENTRAL CC

JANET	Ray
-------	-----

SEATTLE UNIVERSITY

MARK	EHLERS
WYNNE	Guy
BRIAN	HENDERSON
JANET	MILLS
CARL	SWENSON
ANDRE	YANDL

SHORELINE CC

BERT	GRAY
DEBRA	MILLER
MARK	PARKER
Judy	SANDERMAN
MATTHEW	WEAVER

STATE Board/Comm.Tech Col

Becky	MONTGOMERY
-------	------------

WHATCOM CC

LIZ	CUNNINGHAM
DOUG	MOERS
JANE	SHELLY

YAKIMA VALLEY CC

ROGER	KNOBEL
LARRY	OZANICH
BEVERLY J.	PARNELL
DAN	SCHAPIRO

UNAFFILIATED

DAN	DAVIS
WALTER	HORN
ROBERTA	KATZ
Ed	VOYLAN
CHRISTINE	SUSUMI
JOHN	VINCEN

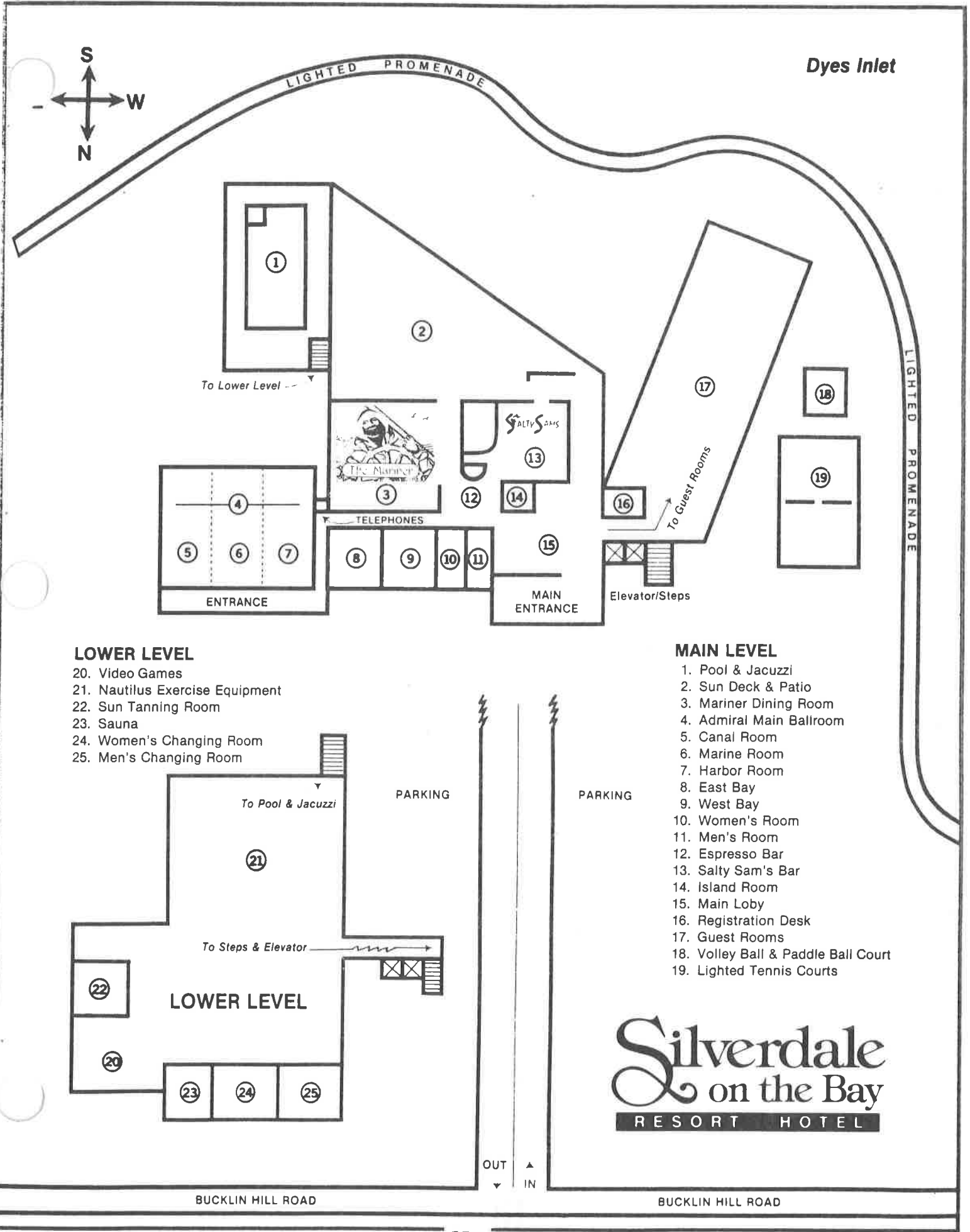
PARTICIPANTS  
 PARTICIPANTS  
 PARTICIPANTS

DAVID	ADAMS	Edmonds CC
Id	AHMED	Olympic College
1	Alford	EVERETT CC
LUANNE	Alward	Spokane Falls CC
EdOH	AMIRAN	WESTERN WASHINGTON UNIV.
AMV	ANDERSON	CENTRAL WASHINGTON UNIV
Marilyn	ANDERSON	Bellevue CC
ARLENE	ARCHISON	SOUTH SEATTLE CC
KRISTINE	BARKER	Clark College
DAVID	BENDER	GREEN RIVER CC
DIANA	BENDER	HIGHLINE CC
PAUL	BLADEK	Spokane Falls CC
STEVE	BOGART	Edmonds CC/SHORELINE CC
ANN	BRACKEBUSCH	Olympic College
KENT	BRAUNINGER	PENINSULA CC
SHARON	Buck	LAKE WASH. TECH. College
RON	BURKE	HIGHLINE CC
DIANE	BUTCHER-EVANS	GREEN RIVER CC
SUE	BUTSCHUN	TACOMA CC
PAUL	Casillas	Clark College
SUSAN	CHIN	SOUTH SEATTLE CC
KAREN	Clark	TACOMA CC
MIKE	Coffey	Olympic College
Ted	Coskey	SOUTH SEATTLE CC
TONI	COWEN	Clark College
AN	CROSS	EVERETT CC
WASPER	CUNNINGHAM	WHATCOM CC
LARRY	Curjel	Univ of WASHINGTON
DAN	CURNUTT	Bellevue CC
MIKE	Davis	Unaffiliated
DIANE	Dodge	Olympic College
TOM	DOWNIE	PIERCE College
JAMES	DUCHAMP	Univ of WASHINGTON
Irish	DUEMMEI	WESTERN WASHINGTON UNIV.
BARBARA	DUTRO	GRAVS HARBOR College
MARK	DYER	Bellevue CC
MARK	EHLERS	SEATTLE UNIVERSITY
JIM	ELLIOTT	Clark College
DEB	ERICKSON	PIERCE College
MIKE	FALCIONI	PIERCE College
JIM	FLODIN	TACOMA CC
MARINA	FRANCIS	Edmonds CC
DIANE	FROST	Clark College
WILLIAM N.	FULLER	LOWER Columbia College
RHODA H.	FULLER	LOWER Columbia College
RICHARD	GAGE	TACOMA CC
CHRISTIE	GANNS	TACOMA CC
SALLY	GILLILAND	GREEN RIVER CC
KIAVANN	GLOVER	GREEN RIVER CC
KAREN	GLUBRECHT	Spokane Falls CC
STON	GRAMLING	Bellevue CC
NY	GRAMLING	Bellevue CC
	GRANATA	PIERCE College

ROBERT	GRAY	SHORELINE CC
PHIL	GREEN	SKAGIT Valley College
GARY	GRIMES	Mr. Hood CC
SUSAN	GRONLUND	Bellevue CC
RUDV	GUNAWAN	Spokane Falls CC
JEREMY	Gup	HIGHLINE CC
WYNNE	Guy	SEATTLE UNIVERSITY
BERTHE	HABIB	Bellevue CC
MARTIN	HAINES	Olympic College
DONNIE	HALLSTONE	GREEN RIVER CC
Earl	HAMILTON	NORTH SEATTLE CC
JAMES D.	HARPER	CENTRAL WASHINGTON UNIV.
BARBARA	HARRAS	Spokane Falls CC
PHIL	Heft	GREEN RIVER CC
David J.	HEMME	HIGHLINE CC
BRIAN	HENDERSON	SEATTLE UNIVERSITY
DAVE	HIMES	WESTERN WASHINGTON UNIV.
STEVE	HINTHORNE	CENTRAL WASHINGTON UNIV.
ROSEMARY	HIRSCHFELDER	Univ of Puget Sound
DALE	Hoffman	Bellevue CC
BRIAN	HOGAN	HIGHLINE CC
LOUISE	HOOPER	Clark College
WALTER	HORN	Unaffiliated
DICK	HUFFMAN	SKAGIT Valley College
BETTE	HUMPHREY	Spokane Falls CC
CURT	HUMPHREY	Spokane Falls CC
GWEN	Hyatt	GRAYS HARBOR College
SUSAN	Indorf	SKAGIT Valley College
CHRIS	JENKIN	SOUTH SEATTLE CC
TOM	JEPSEN	PIERCE College
JEAN	Jiang	EVERETT CC
BRYAN	JOHNS	Edmonds CC / Bellevue CC
JAMES H.	Jordan	WASHINGTON STATE UNIV.
CHERIE	JUSZCZYK	CENTRAL WASHINGTON UNIV
SUSAN BLONDPELL	Kaplan	WESTERN WASHINGTON UNIV.
ROBERTA	KATZ, SPEAKER	Unaffiliated
DANI	KILLINGSWORTH	SOUTH SEATTLE CC
RUSS	KILLINGSWORTH	SOUTH SEATTLE CC
STEVE	KINHOLT	GREEN RIVER CC
ROGER	Knobel	YAKIMA Valley CC
NEAL	Koblitz	UNIV of WASHINGTON
JACEK	KOSTYRKO	KENAI PENINSULA College
MICHAEL	LAMKA	PIERCE College
KATHY	LARSON	Spokane Falls CC
LARRY	LARSON	GREEN RIVER CC
Todd	LENGACHER	WESTERN WASHINGTON UNIV.
HAN	Lim	PIERCE College
MARJORIE	Lindberg	PENINSULA CC
NORM	Lindquist	WESTERN WASHINGTON UNIV.
PAM	Lippert	NORTH SEATTLE CC
SUSANNE	LOHR	NORTH IDAHO College
PAMELA	Lowry	Bellevue CC
STANLEY D.	LUKE	SOUTH SEATTLE CC

LEO	Maki	Olympic College	LYNNE	SAGE	Bellevue CC
SASHA	Malinsky	Bellevue CC	Judv	SANDERMAN	SHORELINE CC
BARBARA	Maly	Edmonds CC	TINA	SCHAFFNER	SKAGIT VALLEY COLLEGE
Wendy	Maybin	CENTRAL WASHINGTON UNIV	DAN	SCHAPIRO	YAKIMA VALLEY CC
ROBERT	MCGREGOR	Spokane Falls CC	HANNA	SCHOTT	KENAI PENINSULA COLLEGE
KIETH	MEERS	CENTRAL WASHINGTON UNIV	JANE	SHELLY	WHATCOM CC
BEVERLY	MESEROLL	Olympic College	MING-LI	SHEN	CENTRAL WASHINGTON UNIV
DIANNE	MEYER	CENTRAL WASHINGTON UNIV	DAVE	SICKS	Olympic College
Paul	MIDDENTS	Olympic College	LYNN	SIEDENSTRANG	GRAVS HARBOR COLLEGE
DEBRA	MILLER	SHORELINE CC	STEPHANIE	SIMMONS	Edmonds CC
JANET	MILLS	SEATTLE UNIVERSITY	BECKER (SID)	SMITH	CENTRAL WASHINGTON UNIV.
BILL	MONROE	Clark College	KATIE	STABLES	WESTERN WASHINGTON UNIV.
BECKY	MONTGOMERY	STATE BOARD/COMM.TECH Col	DAVID	STACY	Bellevue CC
DOUG	MOOERS	WHATCOM CC	JEFF	STADY	WESTERN WASHINGTON UNIV.
LAURA	MOORE-MUELLER	GREEN RIVER CC	CHUCK	STEVENS	SKAGIT VALLEY COLLEGE
Ed	MORRIS	HIGHLINE CC	EDWINA	STOWE	NORTH IDAHO COLLEGE
TIM	MORRISON	UNIV OF WASHINGTON	LARRY	SUSANKA	Bellevue CC
Ed	MOYLAN	UNAFFILIATED	CHRISTINE	SUSUMI	UNAFFILIATED
Linda	NAGLE	Bellevue CC	CARL	SWENSON	SEATTLE UNIVERSITY
SREEDHARANI	NANDAGOPAL	Spokane CC	ROBERT	TAN	TACOMA CC
LARS	NEISES	Spokane Falls CC	STEVE	THOMPSON	SOUTH SEATTLE CC
Ed	NEWELL	HIGHLINE CC	ROBERT F.	TIGHE	NORTH SEATTLE CC
DOUGLAS	Nichols	SOUTH SEATTLE CC	MARILYNN	TOBER	Bellevue CC
Nick	Nickoloff	Spokane Falls CC	BRENDA	TOMULTY	Edmonds CC
YVES	NIEVERGELT	EASTERN WASHINGTON UNIV.	ANDY	TOOP	CENTRAL WASHINGTON UNIV.
SCOTT	NIVEN	Olympic College	TRUNG G.	TRAN	TACOMA CC
GALL	NORD	GONZAGA UNIVERSITY	DEBORAH	UMMEL	Bellevue CC
KAREN	OLSON	Spokane Falls CC	DANA M.	UPDEGROVE	Bellevue CC
KEVIN	OLSON	Spokane Falls CC	SALM	URAL	WESTERN WASHINGTON UNIV
WES	ORSER	Clark College	JOHN	VAN DRUFF	PIERCE COLLEGE
LARRY	OZANICH	Yakima Valley CC	DIANE	VAUGHAN	CENTRAL WASHINGTON UNIV
JAE	PAK	SOUTH SEATTLE CC	JOHN	VINCEN	UNAFFILIATED
MARK	PARKER	SHORELINE CC	MARJIE	VITUM-JONES	SOUTH SEATTLE CC
BEVERLY J.	PARNELL	Yakima Valley CC	NANCV	WAHL	EVERETT CC
DOUGLAS	PETERSON	GREEN RIVER CC	ALLAN	WALTON	HIGHLINE CC
TOM	Phelps	PIERCE COLLEGE	DENNIS W.	WATSON	Clark College
DICK	PLAGGE	HIGHLINE CC	HARRY	WATTS	NORTH SEATTLE CC
KEN	POCHINSKI	UNIV OF WASHINGTON	MATTHEW	WEAVER	SHORELINE CC
BARBARA	POOLE	NORTH SEATTLE CC	HEIDI	WEISS-GREEN	EVERETT CC
FRANK W.	POST	SOUTH SEATTLE CC	JADWIGA	WEYANT	Edmonds CC
MICHELLE	POST	SOUTH SEATTLE CC	GLENN	WHITE	CENTRAL WASHINGTON UNIV
BARBARA	PRICE	UNIV OF PUGET SOUND	JOE	WILCOX	HIGHLINE CC
ROSE L.	PUGH	Bellevue CC	BRIDGET	WISNIEWSKI	WESTERN WASHINGTON UNIV.
BRUCE	RANSOM	Clark College	VAUHN	WITTMAN-GRAHLER	WESTERN WASHINGTON UNIV.
CLAUDIA	RANSOM	Clark College	BETH	WOOD	WESTERN WASHINGTON UNIV.
PETER	RATENER	Bellevue CC	RICK	WOODMANSEE	CENTRAL WASHINGTON UNIV.
JANET	RAY	SEATTLE CENTRAL CC	ANDRE	YANDL	SEATTLE UNIVERSITY
BETTY ANN	REAY	WESTERN WASHINGTON UNIV	TJALLING	YOMA	WESTERN WASHINGTON UNIV.
JOHN	REAY	WESTERN WASHINGTON UNIV.			
JIM	RELF	Bellevue CC			
JERINE	RIDGWAY	SOUTH SEATTLE CC			
DONNA FIELD	ROCHON	WESTERN WASHINGTON UNIV.			
PAT	RYCKMAN	CENTRAL WASHINGTON UNIV			

# MAP OF HOTEL



## LOWER LEVEL

- 20. Video Games
- 21. Nautilus Exercise Equipment
- 22. Sun Tanning Room
- 23. Sauna
- 24. Women's Changing Room
- 25. Men's Changing Room

## MAIN LEVEL

- 1. Pool & Jacuzzi
- 2. Sun Deck & Patio
- 3. Mariner Dining Room
- 4. Admiral Main Ballroom
- 5. Canal Room
- 6. Marine Room
- 7. Harbor Room
- 8. East Bay
- 9. West Bay
- 10. Women's Room
- 11. Men's Room
- 12. Espresso Bar
- 13. Salty Sam's Bar
- 14. Island Room
- 15. Main Lobby
- 16. Registration Desk
- 17. Guest Rooms
- 18. Volley Ball & Paddle Ball Court
- 19. Lighted Tennis Courts

**Silverdale**  
*& on the Bay*  
**RESORT HOTEL**





NOTES

YOUR NOTES  
YOUR NOTES  
YOUR NOTES



WE ARE SO GLAD YOU WEREN'T *TWO TIRED* TO ATTEND THE  
CONFERENCE THIS YEAR!

BEFORE YOU GO, HERE ARE SOME *SHREDS OF TIRED* OL' JOKES:

WHY DOES THE DOVE REPEAT EVERYTHING FOUR TIMES?

THE CAR MANUFACTURER FOR HER NEW CAR SUGGESTS A COOOO-PER TIRE.

WHAT DID THE WHEELS ON THE LEFT SIDE OF THE TRUCK SAY TO  
THE ROCK THAT CAUSED A BLOWOUT?

"YOU *TOR* US APART."

TY ANSWERED THE MATH QUESTION FROM HIS TEACHER  
INCORRECTLY.

TY *ERRED*.

WHAT DID THE MATH PROFESSOR CALL THE SPARE TIRE ON HIS  
FORD?

A *TORUS* ON A *TAURUS*.



THE PUN PATROL HAS ARRIVED AND IT'S TIME TO *RE-TIRE*. WE  
LEAVE NEXT YEAR'S CONFERENCE IN THE HAND OF SKAGIT VALLEY AND  
WHATCOM C.C.'S -- AND THOUGH *TOO TIRED* TO THINK ABOUT IT  
NOW, WE LOOK FORWARD TO ANOTHER EASY-GOING, WORTHWHILE,  
GET-TOGETHER NEXT YEAR. *CAUAL ATTIRE* IS STILL THE RULE.

NEXT YEAR- SKAGIT VALLEY CC / WHATCOM. CC.

FOR MORE INFO, CONTACT--

DOUG MOOERS AT WHATCOM CC, OR

PHIL GREEN AT SKAGIT VALLEY CC [MT. VERNON CAMPUS] OR

SUSAN INDORF AT SKAGIT VALLEY CC [OAK HARBOR CAMPUS]

