| LIMITS |
|--------|
|--------|

1969

1973

1985 5

1988

1993 3, 29

1997 15, 21

1998 12, 76, 83

2003 3, 6, 79

2008 1, 5, 77

# **LIMIT DEFINITION OF DERIVATIVE**

1969 6

1973 23

1985 25

1988 29

1993 37

1997 78?

1998

2003

# **CONTINUITY**

1969 3

1973 45

1985 29

1988 27, 41

1993 5

1997 79

1998 76, 81

2003 13, 20

## **DIFFERENTIABILITY**

1969

1973

1985

1988 27, 41

1993

1997 79

1998 13, 81

2003 13, 20

2008 6, 25

## **DERIVATIVES**

1969 18, 22, 39, 45

1973 9, 18, 36

1985 2, 3, 4, 6, 10, 18, 20, 23

1988 12, 15, 18

1993 1, 8, 24, 25, 31

1997 4, 76, 80

1998

2003

DERIVATIVE: PRODUCT and QUOTIENT RULE

1969

1973

1985

1988 1, 6

1993 7, 10

1997 2

1998 8, 10

2003 4

## **DERIVATIVE: CHAIN RULE**

1969

1973

1985

1988

1993 16

1997

1998 16, 28

2003 1, 9, 14

2008 3, 8, 12, 13

## DERIVATIVE- TANGENT LINE

1969 20

1973 11

1985 8

1988 11

1993 7

1997 10, 12, 80

1998 18,77,87

2003 16, 19, 24, 89

2008 18, 26

# IMPLICIT DERIVATIVE

1969 5, 24

1973 40

1985 13

1988 9

1993 4

1997 17

1998 6

2003 26

# L'HOSPITAL'S 1969 1973 1985 37

# **DERIVATIVE OF INVERSE**



1969

1973

1985 41

1988 20

1993 18(MVT)

1997

1998 4, 76, 81, 91

2003 28.80

# **DERIVATIVE GRAPHS**

1969 16

1973

1985 33

1988 8

1993 21, 40

1997 11,88

1998 17, 23, 79

2003 7, 10, 22

2008 11,76

# $\frac{INCREASING/DECREASING, MAX/MIN, Point of Inflection, Concave \ Up/Concave}{Down}$

1969 7, 17, 19, 21, 30,

1973 10, 22

1985 16, 36, 39, 43

1988 4, 33, 81

1993 15, 21, 23, 27, 44

1997 5, 11, 22, 77, 85, 88

1998 1, 17, 19, 22, 23, 24, 76, 79, 80, 81, 89. 91

2003 15, 17, 18, 21, 81, 87, 90, 92

2008 14, 20, 78, 80, 84, 90

# RELATED RATES

1969 9

1973 76

1985 31

1988 40

1993 34, 39

1997 81

1998 78, 90

2003 78

# **OPTIMIZATION**

1969 36

1973 44

1985

1988

1993

1997 14

1998

2003 22

## PARTICLE MOTION

1969 35

1973 8, 13, 28

1985 11, 14, 28,

1988 3, 16

1993 11, 26, 84

1997 8, 9, 87

1998 14

2003 25, 76, 91

2008 7, 21, 82, 86, 87

# FUNDAMENTAL THEOREM OF CALCULUS

| 1   | $^{\circ}$ | - | $\sim$ |
|-----|------------|---|--------|
| - 1 | 9          | n | 9      |

1973 20

1985 42

1988 13, 25

1993 41

1997

1998 15, 82, 88

2003 23

2008 81, 85

# RIEMANN SUMS

1969

1973 42

1985

1988

1993 36

1997 24, 89

1998 85

2003 85

## **INTEGRALS**

1969 4, 26, 29, 38. 41

1973 21, 25, 27, 30, 32, 38, 41

1985 1, 22, 24, 27, 30, 32, 40

1988 5, 7, 10, 14, 17, 19, 28, 39

1993 12, 14, 17, 22, 28, 32, 38

1997 1, 3, 6, 18, 90

1998 3, 5, 7, 11, 20, 82, 88

2003 2, 5, 8, 11, 77, 82

2008 2, 4, 15, 79

## AREA UNDER CURVES, BETWEEN CURVES

1969 13, 23

1973 15, 17

1985 34

1988 34, 21

1993 2, 6

1997 16, 78, 83

1998 2, 9, 25, 92

2003

2008 9, 17, 83, 92

# **VOLUMES OF REVOLUTION, CROSS-SECTIONS**

| VOLUMES OF REVOLUTION, CROSS-SECTIONS |
|---------------------------------------|
| 1969                                  |
| 1973 35                               |
| 1985 45                               |
| 1988 30, 43                           |
| 1993 20, 30                           |
| 1997 23, 84                           |
| 1998 86                               |
| 2003 86                               |
|                                       |



1969 33

1973 34

1985 44

1988 36

1993

1997 20

1998 27

2003 83, 88

2008 22, 23, 27

# **DIFFERENTIAL EQUATIONS, SEPARATION OF VARIABLES**

| DILL | ERENTINE EQUITIONS; SETTIMETION OF VIRGIBEE | <u> </u> |
|------|---|----------|
| 1969 | 27, 31                                      |          |
| 1973 | 37  |          |
| 1985 |   |          |
| 1988 |   |          |
| 1993 | 33  |          |
| 1997 |   |          |
| 1998 | 21, 84                                      |          |
| 2003 | 84  |          |