

Index

- alphabet, 38-42, 46-47, 51
- analytical solution, 59, 93
- ANOVA, 21-22, 24, 29-30
- approximation, 14, 82, 88, 101, 104, 106
- axisymmetric, 61, 71

- bar chart, 31
- barycentre, 87
- Bessel Function, 63-64, 68
- boundary condition, 15, 61-62, 65-66, 69, 103-06, 108, 110

- cadence, 45-46, 49-50, 52-54
- central difference, 105
- chord, 39, 41-47, 49-50, 52-54
- computational fluid dynamics, 59
- conduction, 14, 99, 103
- constant density, 87
- continuity equation, 60
- convection, 99-100, 103, 114, 117, 119-120
- converge, 14, 88, 90, 94

- coordinate system, 84-87
- cross product, 85-86
- cube, 81, 88, 90-91, 95
- cylinder, 80, 88, 91, 95

- Darcy's Law, 59-60, 71
- Department of Statistics Malaysia, 18, 20, 25, 35
- diffusion, 76, 100
- Dirichlet, 100
- divergence theorem, 107
- dot product, 86
- Durbin-Watson, 20, 27-28, 35

- energy, 99, 103, 120
- enterprises, 19
- enzymes, 40
- error, 23-24, 27-28, 30, 111-13, 119
- exact solution, 100, 104, 110-12, 119-20

- F test, 24-25
- finite difference, 15, 101, 104-05, 120

- finite element method, 15,
 101, 104, 107, 120
 finite element, 79-81, 107,
 120
 finite volume, 81
 FLUENT, 59
 formal language theory, 14,
 38, 46, 54, 56
 fumigant, 57, 59, 77-78

 Galerkin, 107
 genetic algorithm, 37, 55-
 56
 geometry, 4, 7-9, 14, 81,
 101
 global matrix, 110
 governing equation, 103-
 105
 grain, 14, 57-61, 77-78
 gross domestic product, 17-
 18, 34

 Hamiltonian path, 37
 harmony in music, 42
 homogeneity, 22, 28-29
 hypothesis testing, 13, 27

 integral, 5, 14, 68, 79

 Laplace Equation, 59, 61

 Levene's Test, 22, 28-29
 line plot, 31-32

 magnitude, 85
 MATLAB, 84, 88, 106,
 110, 113-115
 mean square, 24, 30
 melody, 42-43, 45-46
 Modified Bessel Function,
 65
 music composition, 38, 45,
 53
 music splicing system, 13,
 41, 46-47

 NETGEN, 81, 83, 93-94
 normal distribution, 9, 21
 numerical integration, 14,
 79,
 numerical method, 7, 15,
 87, 101, 111

 octave, 39, 46-47, 51

 P-P plot, 21, 28
 parallelepiped, 86
 phosphine, 57-59
 Poisson's Equation, 105
 porous medium, 60
 pressure, 70, 72-73

probability, 5, 8, 13, 28

PROTON, 20,

radiation, 99, 103

residual, 26-28

retail, 18-19, 25, 31

separation of variables, 14,
62

set, 5, 38-40, 46, 48-49, 51

silos, 57, 61

small and medium-sized

sphere, 81, 89

splicing operation, 38, 41

SPSS, 25, 27-29

string, 37-39, 46, 51

superposition principle, 66

surface integral, 87