

Index for Workbook 31

Backward difference _____	59	Mixture - pressure in _____	79-81
Best fit straight line _____	15	Newton-Raphson method _____	75-86
Bisection methods _____	70-75	Non-linear equations	67-86
Bottle design _____	52-54	Polynomial _____	3
Central difference _____	60	Pressure in mixture _____	79-81
Cubic spline _____	21-24	Root _____	68
Degree of polynomial _____	3	Simpson's rule _____	45-51
Derivative - first _____	59-60	Solving equations _____	67-86
- second _____	64-65	Splines _____	21-24
Diode _____	20	Taylor series _____	4
Error in Lagrange interpolation _____	11	Trapezium rule	
Error in Simpson's rule _____	47	- composite _____	35-44, 52-54
Error in trapezium rule _____	32, 39	- error _____	32, 39
Experimental data _____	15	- simple _____	29, 34
Forward difference _____	59	Zero _____	68
Integration - numerical _____	28-57	EXERCISES	
Interpolation _____	5	25, 55, 66, 84	
Lagrange error _____	11	ENGINEERING EXAMPLES	
Lagrange interpolation _____	5	1 Plastic bottle design _____	52
Lagrange polynomials _____	6	2 Pressure in an ideal multi-	
Least squares line _____	16	component mixture _____	79
Line of best fit _____	15		