

- linear isometry, 439, 457, 465, 530
 - definition, 465
- linear map, 91, 791, 819
 - associated with an affine map, 823
 - automorphism, 99
 - bounded, 342, 348
 - continuous, 348
 - determinant, 230
 - endomorphism, 99
 - idempotent, 539
 - identity map, 91
 - image, 92
 - invariant subspace, 172
 - inverse, 98
 - involution, 539
 - isomorphism, 98
 - Jordan form, 1110
 - matrix representation, 116
 - nilpotent, 1088, 1103
 - nullity, 191
 - projection, 539
 - rank, 93
 - retraction, 176
 - section, 176
 - transpose, 123, 422
- linear program
 - restricted primal, 1628
- linear programming, 1540, 1750
 - basic column, 1558
 - basic feasible solution, 1558
 - basic index, 1558
 - basic variables, 1558
 - basis, 1558, 1570
 - complementary slackness conditions, 1618
 - cost function, 1540
 - degenerate solution, 1570
 - dual problem, 1610
 - bounded below, 1611
 - dual variables, 1610
 - maximization form, 1611
 - dual program
 - standard form, 1619
 - dual simplex algorithm, 1621
 - feasible solutions, 1540, 1554
 - full tableaux, 1624
 - interior point method, 1751
 - linear program, 1551, 1552
 - standard form, 1556
 - unbounded, 1554
 - objective function, 1552
 - optimal solution, 1540, 1555, 1580
 - primal problem, 1610
 - primal variables, 1610
 - primal-dual algorithm, 1630
 - primal-dual method, 1618
 - standard form, 1750
 - strong duality, 1612
 - equilibrium theorem, 1617, 1621
 - unbounded above, 1580
 - weak duality, 1611
- linear regression, 2033
- linear separable, 1758
- linear span, 1541
- linear subspace, 73, 1541
- linear system
 - condition, 353
 - ill-conditioned, 353
- linear systems of hyperplanes, 930
- linear transformation, 53
- linearization of an affine space
 - definition, 850
- linearly dependent, 52, 71
- linearly independent, 50, 71
- linear map
 - Kernel, 92
- Lions–Stampacchia, 1679
- Lipschitz condition, 1829
- Lipschitz constant, 1679
- Lipschitzian, *see* Lipschitz condition
- local extremum
 - real-valued function, 1458
- local extremum with respect to U
 - real-valued function, 1461
- local maximum