IT is no exaggeration to say that Professor Young's researches—the results of which were recently laid before the Mathematical and Physical Society and Canadian Institute—constitute the most valuable contributions made to the theory of equations in recent years.   Hereafter the name of Professor Young will rank with those of Newton, Lagrange, Fourier, Ganso, and Sylvester.   By a rigid demonstration, which is a remarkable example of mathematical acumen, Professor Young has established a beautiful theorem, which contains all that is known about the roots of rational ineducible equations of prime degree, and from which the wonderful laws of Kronecker may be easily deduced. Professor Young has also succeeded in determining an absolute criterion of the solvability of quintics, and in effecting a general solution of all quintics which are solvable.   All mathematicians will at once perceive the enormous importance of this discovery, which will, no doubt, attract more attention than the investigation into the properties of the roots of equations of prime degree.

CANADIAN students will, as a rule, be more intelligently interested in the ingenious application of Analytical Geometry to the theory of thick lenses developed by Professor Loudon, who is now recognized as one of the most accomplished opticians on the continent.   The justly popular professor of Natural Philosophy in University College, as his wont, was endeavoring to simplify the complicated proofs given in the ordinary books of the properties of lenses ; and in a happy moment he saw that, by imagining the object axis and the image axis of the lens to cut at right angles (or at any other angle), all the vast knowledge of Analytical Geometry, and especially of Conics could at once be utilized for the purpose of discussing the theory of lenses, whether thick or thin.   The discoveries of Professors Young and Loudon will not only bring great honor to these distinguished mathematicians, but will also add materially to the fame of Toronto University as a seat of Mathematical learning.

THE Senate of University College has at last consented to admit ladies, and allow them all the advantages of a University education.   While not much in favor of co-education, we are, nevertheless, glad to see it receive a fair trial.   The parties on either side of the question were pretty well balanced ; and the arguments advanced by both parties appear to be equally valid. The only way, therefore, to settle the difficulty, is to give co-education a fair trial.   If it prove a success, then there is no reason why it should not be encouraged, and everything necessary for the comfort and convenience of the young ladies who aspire after high educational distinction be secured.   But if on the other hand, it be found inexpedient, as it has been in various other colleges, then something else must be done.   If coeducation does not prove a success, the only other alternative is to build a separate college.   It is heathenish to deny to ladies, wishing to avail themselves of a superior education, the privilege which they desire.   They have as much right to demand this privilege of the State as any other part of society has to demand its rights and privileges.   We hope that those days are past in which man regarded himself as woman's superior, and therefore thought himself entitled to peculiar advantages, which she had no right to claim.   We therefore wish the young ladies who desire a University education all success : and trust that whether it be co-education or separate colleges, everything necessary for their comfort and encouragement may eventually be obtained