less than 128 and greater than 32, is $(x-1) + \{(x-1) + (x-2) \dots + (x-31)\} = x-1+31(x-16) = 32x-497$.

University of Texas, November, 1893.

BIBLIOGRAPHY OF MATHEMATICAL DISSERTATIONS.

Catalogue des Thèses de Sciences soutenues en France de 1810 à 1890 inclusivement. Par Albert Marie, Bibliothécaire universitaire Paris H Welter 1892, 8vo. vi-224 pp.

sitaire. Paris, H. Welter, 1892. 8vo. xi+224 pp.

Verzeichnis der seit 1850 an den deutschen Universitäten erschienenen Doctor-Dissertationen und Habilitationsschriften aus der reinen und angewandten Mathematik. Herausgegeben auf Grund des für die Universitäts-Ausstellung in Chicago erschienenen Verzeichnisses. München, 1892. 8vo.

It is generally a matter of considerable difficulty to obtain information in regard to doctors' dissertations. They appear unannounced, at irregular intervals, in many places, and are usually the productions of authors as yet unknown. Separate publications of no great size, relating to subjects of a highly special character, they are often of but little-interest except to the author. Still they are sometimes of the highest scientific importance, and the two recently published lists of the dissertations of the French and German universities will be of great value.

The contents and arrangement of the French catalogue are described in its preface, from which the following notes are extracted.

The special schools of science established in 1802 conferred no degree, and the creation of the faculties of mathematical and physical sciences in 1808 marks the commencement in France of courses in science leading to the doctorate.

The total number of dissertations at Paris from 1811 to the end of 1890 is 701. These are classified as follows: mathematics 184, physics 281, natural science 236.

Those from the Departments * number 172, classified as follows: mathematics 44, physics 61, natural science 67.

The arrangement of the list is first according to location, and then chronological. Each entry gives the name of the author; place and date of birth, and of death (if dead); of ficial positions held; title of dissertation, publisher, date of

^{*}Besançon 8; Bordeaux 5; Caen 7; Clermont-Ferrand 1 (1858) Dijon 10; Grenoble 9; Lille 8; Lyon 14; Marseille 5; Metz 1 (1813) Montpellier 36; Nancy 9; Poitiers 2; Rennes 2; Strassburg 52 Toulouse 16.