AGE STANDARDS FOR THE SEPARATE NORTHUMBERLAND TESTS.

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IN the last number of this *Journal* there was described an hour's intelligence test given to about 3000 children in Northumberland, and standards of performance in the whole test were there obtained.

The booklet of tests consisted of six different kinds of test, given in two cycles, A 1 to A 6 and B 1 to B 6. Owing to printing requirements the order was not quite the same in the two cycles. The following table shows the tests and the point scores possible on each:

TABLE I.

Name of test	Number in booklet	Possible score
Extra Word	A 1 + B 1	8
Number Series	A 2 + B 2	10
Schema or Family Tree	A 3 + B 4	11
Middle Word	A 4 + B 5	8
Extra Number	A 5 + B 3	9
Hindustani	A 6 + B 6	14
		<hr/> Total 60

The age standards given in the previous article for the whole test were based mainly on the marks obtained by those children whose position in school was that of normal children of their age, though the scores of the other children (in a class in advance of or behind their proper school class) were also considered. In the present analysis it has been thought sufficient to retain only the children of the former category of whom there are here considered the following number of cases:

TABLE II.

Age	School Standard	Number of cases
10 but not 11	IV	111
11 „ 12	V	506
12 „ 13	VI	395
13 „ 14	VII	50
		<hr/> Total 1062

These numbers of cases differ slightly from the numbers running diagonally across Table II on page 212 of the previous article, but only because of accidental reasons, a few extra cases having on the one hand come in since then, and on the other hand a random set of papers having been left out of this present count owing to the work of the team of some 40 students having to cease at a certain hour.

Fig. 1. Actual Average Scores in each Test.

The hour's test was given by simply placing the booklet in front of each child and allowing him (or her) to tackle the problems at his own speed. There was no time limit set to each test but only to the whole, though the cyclic arrangement was intended to assist in a reasonably equal division of time.

The age standards of performance in each test, as given in Table III and Figs. 1 and 2, are therefore only to be understood as applying to

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such conditions. The average scores of each age group, or standard scores, are shown in the left-hand part of Table III and again as percentages in the right-hand part of that Table.

TABLE III.
Average scores in each test at each age.

Age in years	Actual scores					As percentage of possible			
	10½	11½	12½	13½	Possible	10½	11½	12½	13½
Extra Word	3.2	5.1	5.9	6.6	8	40	64	74	83
Number Series	2.8	3.6	5.3	6.5	10	28	36	53	65
Family Tree	3.1	5.1	6.7	7.7	11	28	46	61	70
Middle Word	1.5	2.5	3.6	5.7	8	19	31	45	71
Extra Number	1.9	3.8	5.1	6.5	9	21	42	57	72
Hindustani	2.2	3.8	5.5	7.5	14	16	27	39	54

Fig. 2. Scores as Percentages of the Possible Scores in each Test.

The accompanying figures show these results graphically. From Fig. 1, which shows the actual scores, can be seen readily in what manner the total score at each age was made up, 'Family Tree' giving the largest score at all ages except the youngest. 'Hindustani' gives a small proportion at 10 and a large proportion at 13, and is the steepest curve. Fig. 2 shows the results as percentages of the possible score for each test. 'Hindustani' is throughout the hardest, and 'Extra Word' the easiest. The latter and 'Family Tree' are convex upward, showing that they are approaching their limit. The concavity of the 'Middle Word' curve is probably due to the setting in at the top age of the solution of the double series of words given in B 5 (see booklet, in former article, page 207). Theoretically, the curves ought to be ogives, concave upwards below 50 per cent. and convex above. 'Number Series' shows both these points but I think it is accidental at the lower end. 'Hindustani' is below 50 per cent. and is slightly concave, as it should be.

I wish to thank my staff and a number of my students for entering almost 32,000 scores in the separate tests on forms in such a manner as to facilitate my final analysis of the statistics.

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