



Chapter 4A State of Texas Assessments of Academic Readiness (STAAR) Mathematics Addendum

Performance Standards

In July 2015, TEA convened standard-setting committees that recommended performance standards for STAAR grades 3–8 mathematics that aligned to the new mathematics TEKS first implemented in 2014–2015. Additional details about each step in the STAAR standard setting process is given in the “STAAR Standard Setting Technical Report,” available on the [STAAR Performance Standards](#) page of TEA’s Student Assessment Division website.

Outcome of Standard Setting

The standard-setting process elicited recommended cut scores that reflect the level of performance a student must achieve for each performance category of the STAAR grades 3–8 mathematics assessments. Performance standards for all STAAR grades 3–8 mathematics assessments were recommended by standard-setting committees and approved by the commissioner of education. Table 4.9A shows the approved performance standards in scale score units for the STAAR grades 3–8 mathematics assessments (including STAAR Spanish, STAAR L, and STAAR A).

Table 4.9A. STAAR Grades 3–8 Mathematics Performance Standards Applied in 2014–2015

Assessment	Phase-in 1 Level II	Phase-in 2 Level II	Phase-in 3 Level II	Final Recommended Level II	Final Recommended Level III
Grade 3 Mathematics	1347	1388	1444	1486	1596
Grade 4 Mathematics	1453	1494	1548	1589	1670
Grade 5 Mathematics	1487	1528	1583	1625	1724
Grade 6 Mathematics	1523	1562	1614	1653	1772
Grade 7 Mathematics	1563	1600	1650	1688	1798
Grade 8 Mathematics	1583	1618	1665	1700	1854

Scaling

VERTICAL REPORTING SCALES

A new vertical scale for mathematics was established based on the results of the July 2015 grades 3–8 mathematics standard setting. The resulting values of A , B , and V_g for



the vertically scaled STAAR mathematics assessments are provided in Table 4.13A. Once established, these same transformations are applied each year to the proficiency level estimates for that year's set of test questions.

Table 4.13A. Vertical Scale Score Transformation and Scaling Constants for STAAR Grades 3–8 Mathematics

STAAR Assessment		A	B	V_g
Grade	Content Area			
3	Mathematics	107.9372	1619.0471	-2.4791
4	Mathematics	107.9372	1619.0471	-1.4486
5	Mathematics	107.9372	1619.0471	-0.9990
6	Mathematics	107.9372	1619.0471	-0.1322
7	Mathematics	107.9372	1619.0471	0.0870
8	Mathematics	107.9372	1619.0471	0.0000

Test Results

Table 4.18A shows the spring 2015 pass rates for the general STAAR 3–8 mathematics assessments based on the performance standards set during the July 2015 grades 3–8 mathematics standard setting.

Table 4.18A. STAAR Spring 2015 Pass Rates (at the Level II Phase-in 1 Standard)

Content Area	Grade	Pass Rate
Mathematics	Grade 3	77%
	Grade 4	73%
	Grade 5	79%
	Grade 6	75%
	Grade 7	72%
	Grade 8	75%
Mathematics (Spanish)	Grade 3	65%
	Grade 4	55%
	Grade 5	47%

The classification accuracy tables, correlation estimates, raw score to scale score conversion tables, scale score distributions, and summary statistics for all primary STAAR grades 3–8 mathematics assessments that normally would have been provided in [Appendix B](#), are provided below.

STAAR
2015 Classification Accuracy
Tables

Classification Accuracy for 2015 STAAR 3–8 Mathematics Assessments

Grade	STAAR English	STAAR Spanish	STAAR A	STAAR L
3	87.2	87.9	92.6	89.3
4	86.9	88.5	93.3	90.5
5	87.8	89.7	91.8	91.0
6	87.5		87.8	89.3
7	87.6		90.8	91.3
8	89.3		91.8	90.6

STAAR
2015 Correlation Estimates

**2015 STAAR English 3–8 Mathematics Assessments
Scale Score Correlations Within Grade**

Grade	STAAR	STAAR	N	Correlation
3	Mathematics	Reading	339,253	0.74
4	Mathematics	Reading	340,158	0.72
	Mathematics	Writing	337,385	0.70
5	Mathematics	Reading	347,317	0.70
	Mathematics	Science	352,794	0.75
6	Mathematics	Reading	350,935	0.71
7	Mathematics	Reading	321,745	0.72
	Mathematics	Writing	320,180	0.71
8	Mathematics	Reading	273,910	0.63
	Mathematics	Science	278,050	0.76
	Mathematics	Social Studies	276,406	0.64

**2015 STAAR Spanish 3–5 Mathematics Assessments
Scale Score Correlations Within Grade**

Grade	STAAR	STAAR	N	Correlation
3	Mathematics	Reading	17,374	0.68
4	Mathematics	Reading	9,550	0.66
	Mathematics	Writing	9,441	0.67
5	Mathematics	Reading	4,317	0.63
	Mathematics	Science	3,445	0.71

STAAR
2015 Raw Score to Scale
Score (RSSS) Conversion
Tables and Conditional
Standard Error of
Measurement (CSEM)

2015
 STAAR ENGLISH 3–5 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 3		Grade 4		Grade 5	
	SS	CSEM	SS	CSEM	SS	CSEM
0	771		868		931	
1	904	110	1001	110	1063	110
2	984	80	1080	79	1142	79
3	1033	66	1128	66	1189	65
4	1068	59	1163	58	1223	57
5	1097	53	1191	53	1251	52
6	1122	50	1215	49	1274	48
7	1143	47	1236	46	1295	45
8	1163	44	1255	44	1313	43
9	1180	43	1272	42	1329	41
10	1196	41	1288	41	1345	40
11	1211	40	1303	40	1359	39
12	1226	39	1318	39	1372	37
13	1239	38	1331	38	1385	36
14	1252	37	1344	37	1397	36
15	1264	36	1357	37	1408	35
16	1277	36	1369	36	1420	35
17	1288	35	1381	36	1431	34
18	1300	35	1393	35	1441	34
19	1311	35	1404	35	1452	33
20	1322	34	1416	35	1462	33
21	1333	34	1427	35	1472	33
22	*1347	34	1438	35	1482	33
23	1354	34	*1453	35	*1487	33
24	1365	34	1461	35	1502	32
25	1375	34	1472	35	1511	32
26	1388	34	1483	35	1521	32
27	1397	34	1494	35	1528	33
28	1408	34	1506	35	1541	33
29	1419	35	1517	36	1551	33
30	1430	35	1529	36	1561	33
31	1444	36	1541	36	1571	33
32	1454	36	1548	37	1583	34
33	1466	37	1566	37	1592	34
34	**1486	38	1579	38	1603	35
35	1493	39	**1589	39	1614	35
36	1507	40	1607	39	**1625	36

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

CSEM at minimum and maximum scores left intentionally blank.
 Sufficient information was not available to accurately estimate these values.

2015
 STAAR ENGLISH 3–5 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 3		Grade 4		Grade 5	
	SS	CSEM	SS	CSEM	SS	CSEM
37	1523	42	1621	40	1638	36
38	1539	43	1637	42	1650	37
39	1558	46	1654	43	1664	39
40	1578	48	***1670	45	1678	40
41	***1596	52	1691	47	1693	41
42	1629	57	1713	50	1710	43
43	1664	65	1738	54	***1724	45
44	1711	79	1767	59	1748	48
45	1789	110	1803	67	1771	52
46	1921		1852	80	1799	57
47			1932	110	1833	65
48			2065		1881	79
49					1959	110
50					2091	

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

CSEM at minimum and maximum scores left intentionally blank.
 Sufficient information was not available to accurately estimate these values.

2015
 STAAR 6–8 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 6		Grade 7		Grade 8	
	SS	CSEM	SS	CSEM	SS	CSEM
0	1024		1015		1005	
1	1156	109	1149	110	1138	110
2	1234	78	1229	80	1217	79
3	1281	65	1277	66	1264	66
4	1315	57	1313	59	1299	58
5	1343	52	1342	53	1327	52
6	1365	48	1366	49	1351	49
7	1385	45	1388	47	1372	46
8	1403	43	1407	44	1390	43
9	1419	41	1424	42	1407	42
10	1434	39	1440	41	1422	40
11	1448	38	1455	40	1437	39
12	1461	37	1469	38	1450	38
13	1473	36	1482	37	1463	37
14	1485	35	1495	37	1475	36
15	1496	35	1507	36	1487	35
16	1507	34	1519	35	1498	35
17	1517	33	1530	35	1509	34
18	*1523	33	1541	34	1520	34
19	1538	33	1552	34	1531	33
20	1547	32	*1563	33	1541	33
21	1557	32	1573	33	1551	33
22	1562	32	1583	33	1561	32
23	1576	32	1592	33	1570	32
24	1585	32	1600	32	*1583	32
25	1595	32	1612	32	1590	32
26	1604	32	1622	32	1599	32
27	1614	32	1631	32	1609	32
28	1623	32	1641	32	1618	32
29	1632	32	1650	32	1628	32
30	1641	32	1660	32	1637	32
31	**1653	32	1670	32	1647	32
32	1661	32	1679	32	1656	32
33	1671	33	**1688	33	1665	32
34	1681	33	1699	33	1676	33
35	1691	34	1709	33	1686	33
36	1702	34	1720	34	**1700	33

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

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2015
 STAAR 6–8 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 6		Grade 7		Grade 8	
	SS	CSEM	SS	CSEM	SS	CSEM
37	1713	35	1730	34	1706	34
38	1724	35	1741	34	1717	34
39	1736	36	1752	35	1728	34
40	1748	37	1764	36	1739	35
41	1762	38	1776	36	1750	36
42	***1772	40	1789	37	1762	36
43	1791	41	***1798	38	1775	37
44	1807	43	1816	40	1788	38
45	1825	45	1831	41	1802	39
46	1845	48	1848	43	1816	40
47	1869	52	1866	45	1832	42
48	1896	57	1886	48	***1854	44
49	1931	65	1909	52	1868	46
50	1978	79	1937	57	1889	49
51	2056	110	1971	65	1913	53
52	2189		2019	79	1941	58
53			2097	110	1976	66
54			2229		2024	79
55					2103	110
56					2236	

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

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2015
 STAAR SPANISH 3–5 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 3		Grade 4		Grade 5	
	SS	CSEM	SS	CSEM	SS	CSEM
0	771		868		931	
1	904	110	1001	110	1063	110
2	984	80	1080	79	1142	79
3	1033	66	1128	66	1189	65
4	1068	59	1163	58	1223	57
5	1097	53	1191	53	1251	52
6	1122	50	1215	49	1274	48
7	1143	47	1236	46	1295	45
8	1163	44	1255	44	1313	43
9	1180	43	1272	42	1329	41
10	1196	41	1288	41	1345	40
11	1211	40	1303	40	1359	39
12	1226	39	1318	39	1372	37
13	1239	38	1331	38	1385	36
14	1252	37	1344	37	1397	36
15	1264	36	1357	37	1408	35
16	1277	36	1369	36	1420	35
17	1288	35	1381	36	1431	34
18	1300	35	1393	35	1441	34
19	1311	35	1404	35	1452	33
20	1322	34	1416	35	1462	33
21	1333	34	1427	35	1472	33
22	*1347	34	1438	35	1482	33
23	1354	34	*1453	35	*1487	33
24	1365	34	1461	35	1502	32
25	1375	34	1472	35	1511	32
26	1388	34	1483	35	1521	32
27	1397	34	1494	35	1528	33
28	1408	34	1506	35	1541	33
29	1419	35	1517	36	1551	33
30	1430	35	1529	36	1561	33
31	1444	36	1541	36	1571	33
32	1454	36	1548	37	1583	34
33	1466	37	1566	37	1592	34
34	**1486	38	1579	38	1603	35
35	1493	39	**1589	39	1614	35
36	1507	40	1607	39	**1625	36

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

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2015
 STAAR SPANISH 3–5 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 3		Grade 4		Grade 5	
	SS	CSEM	SS	CSEM	SS	CSEM
37	1523	42	1621	40	1638	36
38	1539	43	1637	42	1650	37
39	1558	46	1654	43	1664	39
40	1578	48	***1670	45	1678	40
41	***1596	52	1691	47	1693	41
42	1629	57	1713	50	1710	43
43	1664	65	1738	54	***1724	45
44	1711	79	1767	59	1748	48
45	1789	110	1803	67	1771	52
46	1921		1852	80	1799	57
47			1932	110	1833	65
48			2065		1881	79
49					1959	110
50					2091	

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

CSEM at minimum and maximum scores left intentionally blank.
 Sufficient information was not available to accurately estimate these values.

2015
 STAAR A 3–5 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 3		Grade 4		Grade 5	
	SS	CSEM	SS	CSEM	SS	CSEM
0	771		868		931	
1	904	110	1001	110	1063	110
2	984	80	1080	79	1142	79
3	1033	66	1128	66	1189	65
4	1068	59	1163	58	1223	57
5	1097	53	1191	53	1251	52
6	1122	50	1215	49	1274	48
7	1143	47	1236	46	1295	45
8	1163	44	1255	44	1313	43
9	1180	43	1272	42	1329	41
10	1196	41	1288	41	1345	40
11	1211	40	1303	40	1359	39
12	1226	39	1318	39	1372	37
13	1239	38	1331	38	1385	36
14	1252	37	1344	37	1397	36
15	1264	36	1357	37	1408	35
16	1277	36	1369	36	1420	35
17	1288	35	1381	36	1431	34
18	1300	35	1393	35	1441	34
19	1311	35	1404	35	1452	33
20	1322	34	1416	35	1462	33
21	1333	34	1427	35	1472	33
22	*1347	34	1438	35	1482	33
23	1354	34	*1453	35	*1487	33
24	1365	34	1461	35	1502	32
25	1375	34	1472	35	1511	32
26	1388	34	1483	35	1521	32
27	1397	34	1494	35	1528	33
28	1408	34	1506	35	1541	33
29	1419	35	1517	36	1551	33
30	1430	35	1529	36	1561	33
31	1444	36	1541	36	1571	33
32	1454	36	1548	37	1583	34
33	1466	37	1566	37	1592	34
34	**1486	38	1579	38	1603	35
35	1493	39	**1589	39	1614	35
36	1507	40	1607	39	**1625	36

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

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2015
 STAAR A 3–5 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 3		Grade 4		Grade 5	
	SS	CSEM	SS	CSEM	SS	CSEM
37	1523	42	1621	40	1638	36
38	1539	43	1637	42	1650	37
39	1558	46	1654	43	1664	39
40	1578	48	***1670	45	1678	40
41	***1596	52	1691	47	1693	41
42	1629	57	1713	50	1710	43
43	1664	65	1738	54	***1724	45
44	1711	79	1767	59	1748	48
45	1789	110	1803	67	1771	52
46	1921		1852	80	1799	57
47			1932	110	1833	65
48			2065		1881	79
49					1959	110
50					2091	

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

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2015
 STAAR A 6–8 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 6		Grade 7		Grade 8	
	SS	CSEM	SS	CSEM	SS	CSEM
0	1024		1015		1005	
1	1156	109	1149	110	1138	110
2	1234	78	1229	80	1217	79
3	1281	65	1277	66	1264	66
4	1315	57	1313	59	1299	58
5	1343	52	1342	53	1327	52
6	1365	48	1366	49	1351	49
7	1385	45	1388	47	1372	46
8	1403	43	1407	44	1390	43
9	1419	41	1424	42	1407	42
10	1434	39	1440	41	1422	40
11	1448	38	1455	40	1437	39
12	1461	37	1469	38	1450	38
13	1473	36	1482	37	1463	37
14	1485	35	1495	37	1475	36
15	1496	35	1507	36	1487	35
16	1507	34	1519	35	1498	35
17	1517	33	1530	35	1509	34
18	*1523	33	1541	34	1520	34
19	1538	33	1552	34	1531	33
20	1547	32	*1563	33	1541	33
21	1557	32	1573	33	1551	33
22	1562	32	1583	33	1561	32
23	1576	32	1592	33	1570	32
24	1585	32	1600	32	*1583	32
25	1595	32	1612	32	1590	32
26	1604	32	1622	32	1599	32
27	1614	32	1631	32	1609	32
28	1623	32	1641	32	1618	32
29	1632	32	1650	32	1628	32
30	1641	32	1660	32	1637	32
31	**1653	32	1670	32	1647	32
32	1661	32	1679	32	1656	32
33	1671	33	**1688	33	1665	32
34	1681	33	1699	33	1676	33
35	1691	34	1709	33	1686	33
36	1702	34	1720	34	**1700	33

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

CSEM at minimum and maximum scores left intentionally blank.
 Sufficient information was not available to accurately estimate these values.

2015
 STAAR A 6–8 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 6		Grade 7		Grade 8	
	SS	CSEM	SS	CSEM	SS	CSEM
37	1713	35	1730	34	1706	34
38	1724	35	1741	34	1717	34
39	1736	36	1752	35	1728	34
40	1748	37	1764	36	1739	35
41	1762	38	1776	36	1750	36
42	***1772	40	1789	37	1762	36
43	1791	41	***1798	38	1775	37
44	1807	43	1816	40	1788	38
45	1825	45	1831	41	1802	39
46	1845	48	1848	43	1816	40
47	1869	52	1866	45	1832	42
48	1896	57	1886	48	***1854	44
49	1931	65	1909	52	1868	46
50	1978	79	1937	57	1889	49
51	2056	110	1971	65	1913	53
52	2189		2019	79	1941	58
53			2097	110	1976	66
54			2229		2024	79
55					2103	110
56					2236	

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

CSEM at minimum and maximum scores left intentionally blank.
 Sufficient information was not available to accurately estimate these values.

2015
 STAAR L 3–5 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 3		Grade 4		Grade 5	
	SS	CSEM	SS	CSEM	SS	CSEM
0	771		868		931	
1	904	110	1001	110	1063	110
2	984	80	1080	79	1142	79
3	1033	66	1128	66	1189	65
4	1068	59	1163	58	1223	57
5	1097	53	1191	53	1251	52
6	1122	50	1215	49	1274	48
7	1143	47	1236	46	1295	45
8	1163	44	1255	44	1313	43
9	1180	43	1272	42	1329	41
10	1196	41	1288	41	1345	40
11	1211	40	1303	40	1359	39
12	1226	39	1318	39	1372	37
13	1239	38	1331	38	1385	36
14	1252	37	1344	37	1397	36
15	1264	36	1357	37	1408	35
16	1277	36	1369	36	1420	35
17	1288	35	1381	36	1431	34
18	1300	35	1393	35	1441	34
19	1311	35	1404	35	1452	33
20	1322	34	1416	35	1462	33
21	1333	34	1427	35	1472	33
22	*1347	34	1438	35	1482	33
23	1354	34	*1453	35	*1487	33
24	1365	34	1461	35	1502	32
25	1375	34	1472	35	1511	32
26	1388	34	1483	35	1521	32
27	1397	34	1494	35	1528	33
28	1408	34	1506	35	1541	33
29	1419	35	1517	36	1551	33
30	1430	35	1529	36	1561	33
31	1444	36	1541	36	1571	33
32	1454	36	1548	37	1583	34
33	1466	37	1566	37	1592	34
34	**1486	38	1579	38	1603	35
35	1493	39	**1589	39	1614	35
36	1507	40	1607	39	**1625	36

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

CSEM at minimum and maximum scores left intentionally blank.
 Sufficient information was not available to accurately estimate these values.

2015
 STAAR L 3–5 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 3		Grade 4		Grade 5	
	SS	CSEM	SS	CSEM	SS	CSEM
37	1523	42	1621	40	1638	36
38	1539	43	1637	42	1650	37
39	1558	46	1654	43	1664	39
40	1578	48	***1670	45	1678	40
41	***1596	52	1691	47	1693	41
42	1629	57	1713	50	1710	43
43	1664	65	1738	54	***1724	45
44	1711	79	1767	59	1748	48
45	1789	110	1803	67	1771	52
46	1921		1852	80	1799	57
47			1932	110	1833	65
48			2065		1881	79
49					1959	110
50					2091	

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

CSEM at minimum and maximum scores left intentionally blank.
 Sufficient information was not available to accurately estimate these values.

2015
 STAAR L 6–8 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 6		Grade 7		Grade 8	
	SS	CSEM	SS	CSEM	SS	CSEM
0	1024		1015		1005	
1	1156	109	1149	110	1138	110
2	1234	78	1229	80	1217	79
3	1281	65	1277	66	1264	66
4	1315	57	1313	59	1299	58
5	1343	52	1342	53	1327	52
6	1365	48	1366	49	1351	49
7	1385	45	1388	47	1372	46
8	1403	43	1407	44	1390	43
9	1419	41	1424	42	1407	42
10	1434	39	1440	41	1422	40
11	1448	38	1455	40	1437	39
12	1461	37	1469	38	1450	38
13	1473	36	1482	37	1463	37
14	1485	35	1495	37	1475	36
15	1496	35	1507	36	1487	35
16	1507	34	1519	35	1498	35
17	1517	33	1530	35	1509	34
18	*1523	33	1541	34	1520	34
19	1538	33	1552	34	1531	33
20	1547	32	*1563	33	1541	33
21	1557	32	1573	33	1551	33
22	1562	32	1583	33	1561	32
23	1576	32	1592	33	1570	32
24	1585	32	1600	32	*1583	32
25	1595	32	1612	32	1590	32
26	1604	32	1622	32	1599	32
27	1614	32	1631	32	1609	32
28	1623	32	1641	32	1618	32
29	1632	32	1650	32	1628	32
30	1641	32	1660	32	1637	32
31	**1653	32	1670	32	1647	32
32	1661	32	1679	32	1656	32
33	1671	33	**1688	33	1665	32
34	1681	33	1699	33	1676	33
35	1691	34	1709	33	1686	33
36	1702	34	1720	34	**1700	33

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

CSEM at minimum and maximum scores left intentionally blank.
 Sufficient information was not available to accurately estimate these values.

2015
 STAAR L 6–8 MATHEMATICS
 Conditional Standard Error of Measurement (CSEM)
 Scale Score (SS)

Raw	Grade 6		Grade 7		Grade 8	
	SS	CSEM	SS	CSEM	SS	CSEM
37	1713	35	1730	34	1706	34
38	1724	35	1741	34	1717	34
39	1736	36	1752	35	1728	34
40	1748	37	1764	36	1739	35
41	1762	38	1776	36	1750	36
42	***1772	40	1789	37	1762	36
43	1791	41	***1798	38	1775	37
44	1807	43	1816	40	1788	38
45	1825	45	1831	41	1802	39
46	1845	48	1848	43	1816	40
47	1869	52	1866	45	1832	42
48	1896	57	1886	48	***1854	44
49	1931	65	1909	52	1868	46
50	1978	79	1937	57	1889	49
51	2056	110	1971	65	1913	53
52	2189		2019	79	1941	58
53			2097	110	1976	66
54			2229		2024	79
55					2103	110
56					2236	

* Phase-in I Level II

** Recommended Level II

*** Recommended Level III

CSEM at minimum and maximum scores left intentionally blank.
 Sufficient information was not available to accurately estimate these values.

STAAR
2015 English Language
Learner (ELL) Progress
Measure Results

**2015 English Language Learner (ELL) Progress Measure Results
Grades 3–8 Mathematics**

Assessment	N	Level I			Level II Phase-in 1			Level III			Did Not Meet	Met	Exceeded
		Did Not Meet	Met	Exceeded	Did Not Meet	Met	Exceeded	Did Not Meet	Met	Exceeded			
Grade 3 Mathematics	66,615	21,695	1,551	0	0	24,055	15,791	0	0	3,523	21,695	25,606	19,314
		33%	2%	0%	0%	36%	24%	0%	0%	5%	33%	38%	29%
Grade 4 Mathematics	49,138	20,328	399	0	0	14,640	11,342	0	0	2,429	20,328	15,039	13,771
		41%	1%	0%	0%	30%	23%	0%	0%	5%	41%	31%	28%
Grade 5 Mathematics	6,653	2,223	394	0	0	1,564	1,873	0	0	599	2,223	1,958	2,472
		33%	6%	0%	0%	24%	28%	0%	0%	9%	33%	29%	37%
Grade 6 Mathematics	7,067	3,149	808	0	0	1,896	878	0	0	336	3,149	2,704	1,214
		45%	11%	0%	0%	27%	12%	0%	0%	5%	45%	38%	17%
Grade 7 Mathematics	7,890	4,092	1,097	0	0	1,510	919	0	0	272	4,092	2,607	1,191
		52%	14%	0%	0%	19%	12%	0%	0%	3%	52%	33%	15%
Grade 8 Mathematics	7,967	3,263	1,287	0	0	2,466	768	0	0	183	3,263	3,753	951
		41%	16%	0%	0%	31%	10%	0%	0%	2%	41%	47%	12%
Total	145,330	54,750	5,536	0	0	46,131	31,571	0	0	7,342	54,750	51,667	38,913
		38%	4%	0%	0%	32%	22%	0%	0%	5%	38%	36%	27%

NOTE: Due to rounding, percent values may not sum to 100. Includes only students eligible for the ELL progress measure that took the STAAR or STAAR L assessment.

STAAR
2015 Score Distributions and
Statistics by Content Area
and Grade

Glossary

This glossary provides definitions for the statistical terms that appear in the tables and graphs in this section ("STAAR 2015 Score Distributions and Statistics by Content Area and Grade") of Appendix B. Definition of statistical terms and concepts in the other sections are given in chapter 3 or chapter 4.

Descriptive Statistics

Mean. The mean is a measure of central tendency. It is the average score for the assessment. It is computed by summing the scores of all students and dividing it by the total number of students (N).

Median. The median is another measure of central tendency. It is the score at the middle of the frequency distribution for the assessment. It is computed by finding the score at which there is the same number of scores above as there is below.

Mode. The mode is another measure of central tendency. It is the most frequently obtained score for the assessment. It is determined by computing the frequency distribution and finding the score point with the highest frequency (n -count).

Range. The range is a measure of statistical dispersion (variability or spread). It is the difference between the lowest and highest scores obtained by students on the assessment. It is computed by subtracting the lowest score from the highest score.

Interquartile Range. The interquartile range is another measure of statistical dispersion (variability or spread). It is the difference between the 1st and 3rd quartiles (or 25th and 75th percentiles) of the score distribution for the assessment. It is computed by subtracting the score at the 1st quartile (the point that splits the lowest 25% of the scores) from the score at the 3rd quartile (the point that splits the highest 25% of the scores).

Standard Deviation (SD). The standard deviation is another measure of statistical dispersion (variability or spread). It is an indicator of the degree of score variation around the mean. It is computed using the following formula.

$$SD = \sqrt{\frac{\sum_{i=1}^N (x_i - \bar{x})^2}{N - 1}}$$

where x_i is the score for student i , \bar{x} is the mean score and N is the total number of students that took the assessment.

Variance. The variance is another measure of statistical dispersion (variability or spread) around the mean. It is computed as the square of the standard deviation (SD).

Skewness. The skewness is an indicator of the shape of the score distribution. It measures the extent to which the score distribution "leans" to one side of the mean. A positive skewness indicates that the score distribution leans below the mean. A negative skewness indicates that the score distribution leans above the mean. A skewness of zero indicates that the score distribution is symmetric around the mean. It is computed using the following formula.

$$\text{Skewness} = \frac{N}{(N-1)(N-2)} \sum_{i=1}^N \left(\frac{x_i - \bar{x}}{s_x} \right)^3$$

where x_i is the score for student i , \bar{x} is the mean score, s_x is the standard deviation (SD) and N is the total number of students that took the assessment.

Kurtosis. The kurtosis is another indicator of the shape of the score distribution. It measures the "peakedness" of the score distribution. A positive kurtosis is referred to as *leptokurtic*, meaning that the distribution has a more acute peak around the mean and fatter tails. A negative kurtosis is called *platykurtic*, meaning the distribution has a lower, wider peak around the mean and thinner tails. It is computed using the following formula.

$$\text{Kurtosis} = \frac{N(N+1)}{(N-1)(N-2)(N-3)} \sum_{i=1}^N \left(\frac{x_i - \bar{x}}{s_x} \right)^4 - \frac{3(N-1)^2}{(N-2)(N-3)}$$

where x_i is the score for student i , \bar{x} is the mean score, s_x is the standard deviation (SD) and N is the total number of students that took the assessment.

Frequency Distributions

Frequency (FREQ). This is the number of students that obtained the particular score point on the assessment.

Cumulative Frequency (CUM FREQ). This is the number of students that obtained a score that is less than or equal to the particular score point on the assessment.

Percentage (PCT). This is the percentage of students that obtained the particular score point on the assessment. It is computed as: $\text{PCT} = \text{FREQ} \div N \times 100$.

Cumulative Percentage (CUM PCT). This is the percentage of students that obtained a score that is less than or equal to the particular score point on the assessment. It is computed as: $\text{CUM PCT} = \text{CUM FREQ} \div N \times 100$.

Scale Score Descriptive Statistics for 2015 STAAR English 3–8 Mathematics Assessments

Subject	N	Mean	Median	Mode	Interquartile		SD	Variance	Skewness	Kurtosis
					Range	Range				
GRADE 3 MATHEMATICS	355283	1449.06	1444	1578	1150	192	139.29	19401.42	0.3974	0.3134
GRADE 4 MATHEMATICS	356198	1535.24	1529	1566	1197	183	135.74	18426.47	0.4084	0.3900
GRADE 5 MATHEMATICS	356758	1599.31	1592	1650	1160	191	137.98	19038.96	0.4441	0.5087
GRADE 6 MATHEMATICS	348792	1621.01	1604	1507	1165	179	131.07	17179.45	0.7795	0.9214
GRADE 7 MATHEMATICS	322612	1641.86	1631	1541	1214	168	125.07	15641.74	0.5310	0.3673
GRADE 8 MATHEMATICS	301796	1658.02	1647	1665	1231	145	117.68	13848.98	0.5755	1.5496

Scale Score Descriptive Statistics for 2015 STAAR Spanish 3–5 Mathematics Assessments

Subject	N	Mean	Median	Mode	Range	Interquartile		SD	Variance	Skewness	Kurtosis
						Q1	Q3				
GRADE 3 MATHEMATICS	17732	1396.09	1388	1365	1150	175		122.01	14885.98	0.4352	0.3549
GRADE 4 MATHEMATICS	9831	1469.21	1461	1427	1197	167		121.37	14729.80	0.5529	0.7024
GRADE 5 MATHEMATICS	4652	1491.48	1482	1420	1160	153		110.34	12174.19	0.5411	0.6033

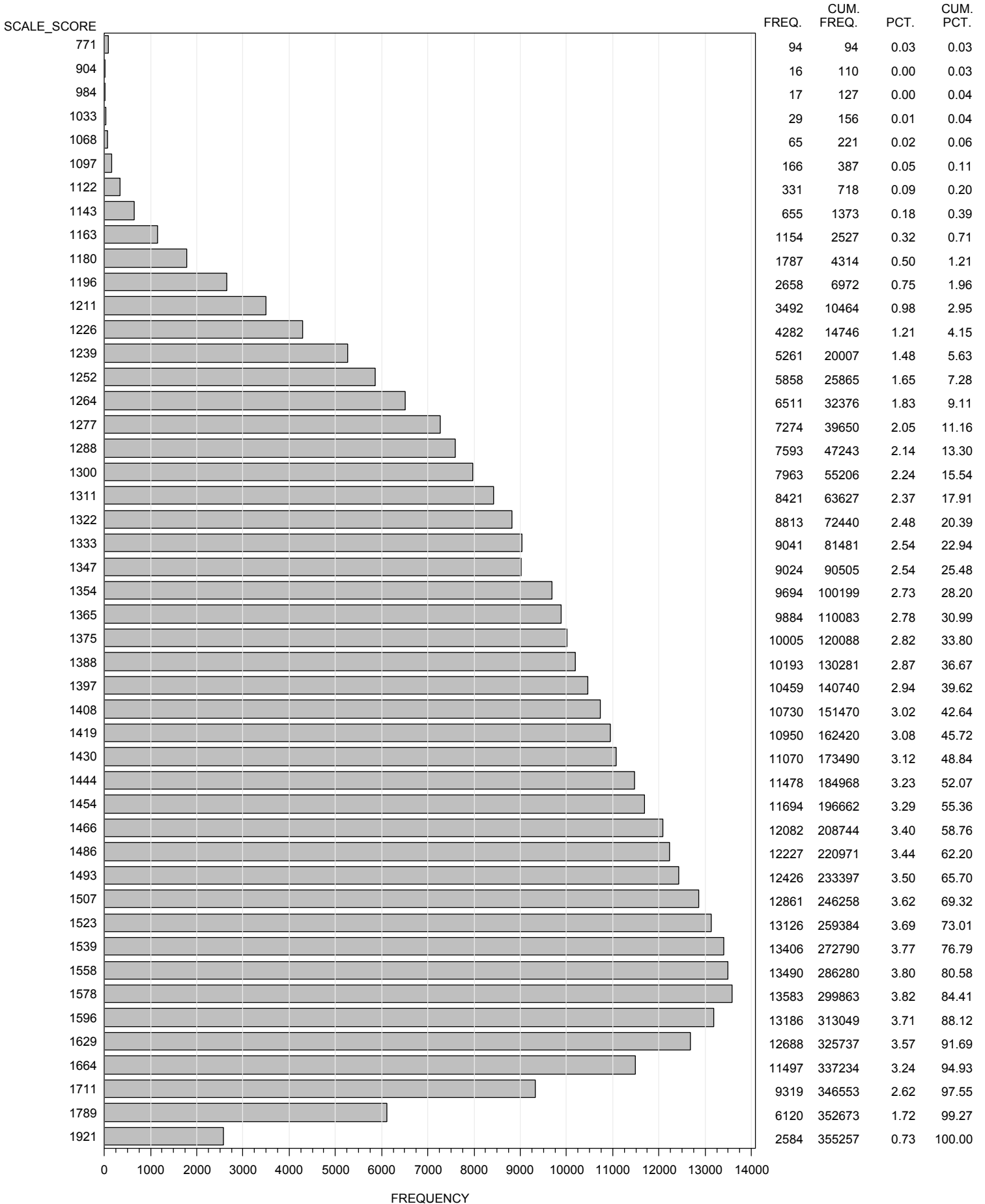
Scale Score Descriptive Statistics for 2015 STAAR A 3–8 Mathematics Assessments

Subject	N	Mean	Median	Mode	Range	Interquartile		SD	Variance	Skewness	Kurtosis
						Q1	Q3				
GRADE 3 MATHEMATICS	13026	1276.77	1264	1239	1150	111	86.02	7399.38	0.8047	1.8494	
GRADE 4 MATHEMATICS	17384	1373.29	1357	1331	1197	98	85.64	7334.41	0.8911	1.9389	
GRADE 5 MATHEMATICS	19497	1435.39	1420	1385	1160	97	81.45	6634.45	0.6761	1.4315	
GRADE 6 MATHEMATICS	19322	1485.66	1485	1461	907	69	63.17	3990.42	0.6530	3.7511	
GRADE 7 MATHEMATICS	19307	1503.97	1495	1482	922	72	66.52	4425.33	0.6257	3.3155	
GRADE 8 MATHEMATICS	18637	1522.18	1509	1498	936	86	71.23	5073.72	0.7804	2.1750	

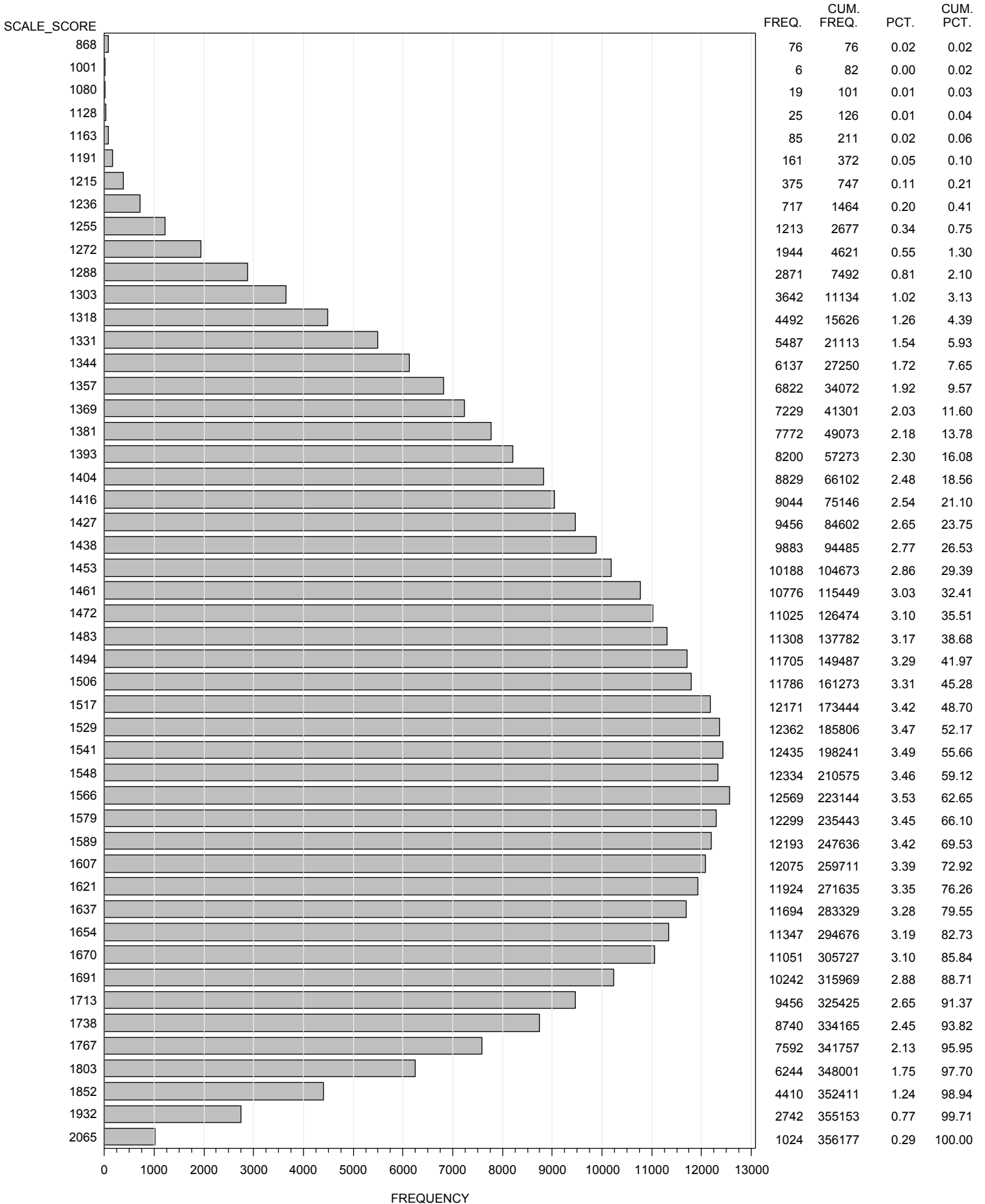
Scale Score Descriptive Statistics for 2015 STAAR L 3–8 Mathematics Assessments

Subject	N	Mean	Median	Mode	Range	Interquartile		SD	Variance	Skewness	Kurtosis
						Q1	Q3				
GRADE 3 MATHEMATICS	5094	1331.38	1311	1264	888	145	102.55	10516.02	0.7574	1.0203	
GRADE 4 MATHEMATICS	1979	1421.40	1393	1331	1064	163	125.04	15635.70	0.6438	0.9923	
GRADE 5 MATHEMATICS	2242	1480.85	1462	1385	1028	176	126.29	15949.97	0.8565	0.9610	
GRADE 6 MATHEMATICS	4876	1503.47	1485	1448	1032	90	93.77	8791.98	1.3151	3.4196	
GRADE 7 MATHEMATICS	6150	1518.81	1495	1469	1214	97	92.64	8581.48	1.2079	3.5179	
GRADE 8 MATHEMATICS	6273	1556.28	1541	1487	1231	122	98.98	9796.66	1.0367	1.9854	

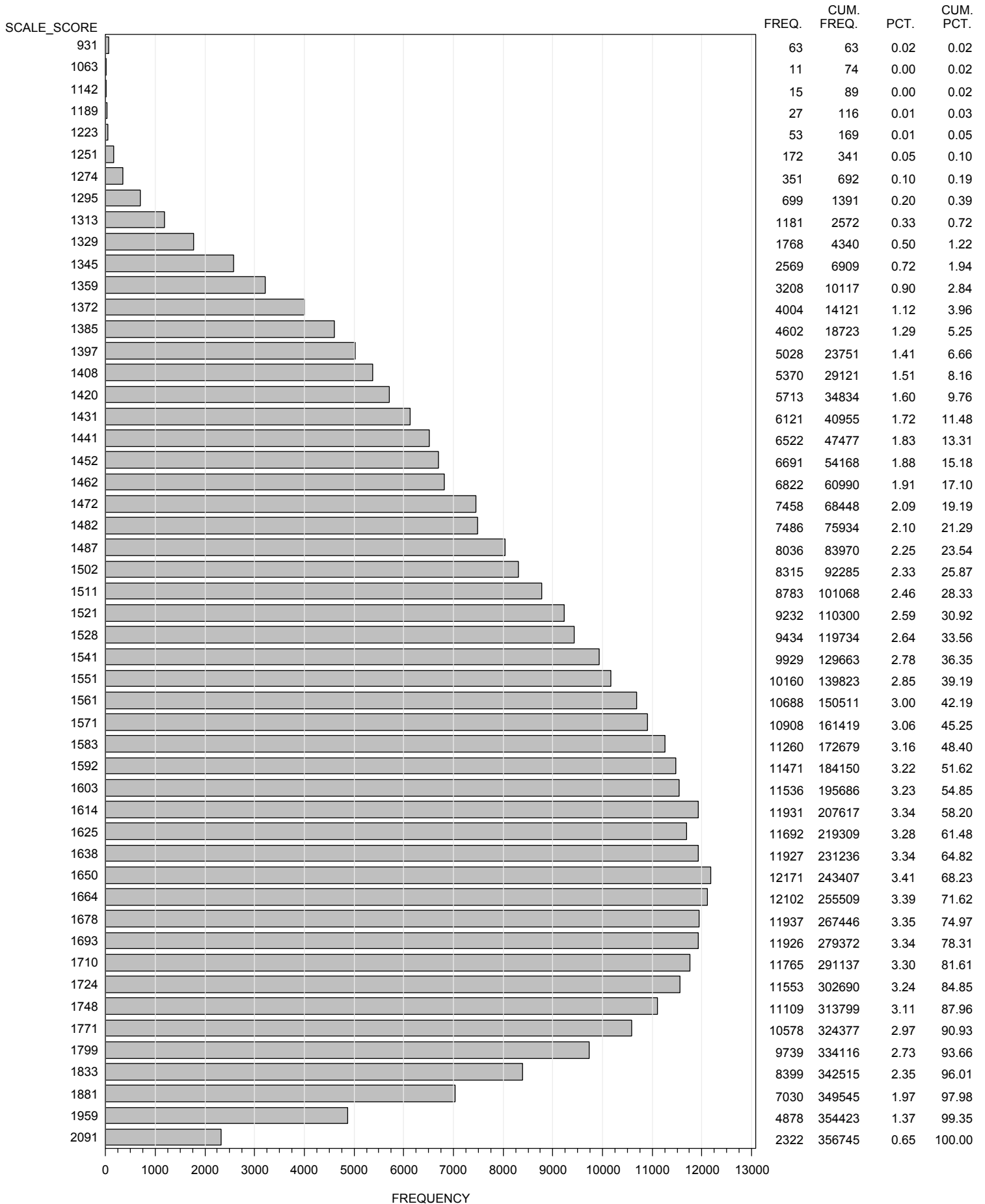
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 GRADE 3 MATHEMATICS
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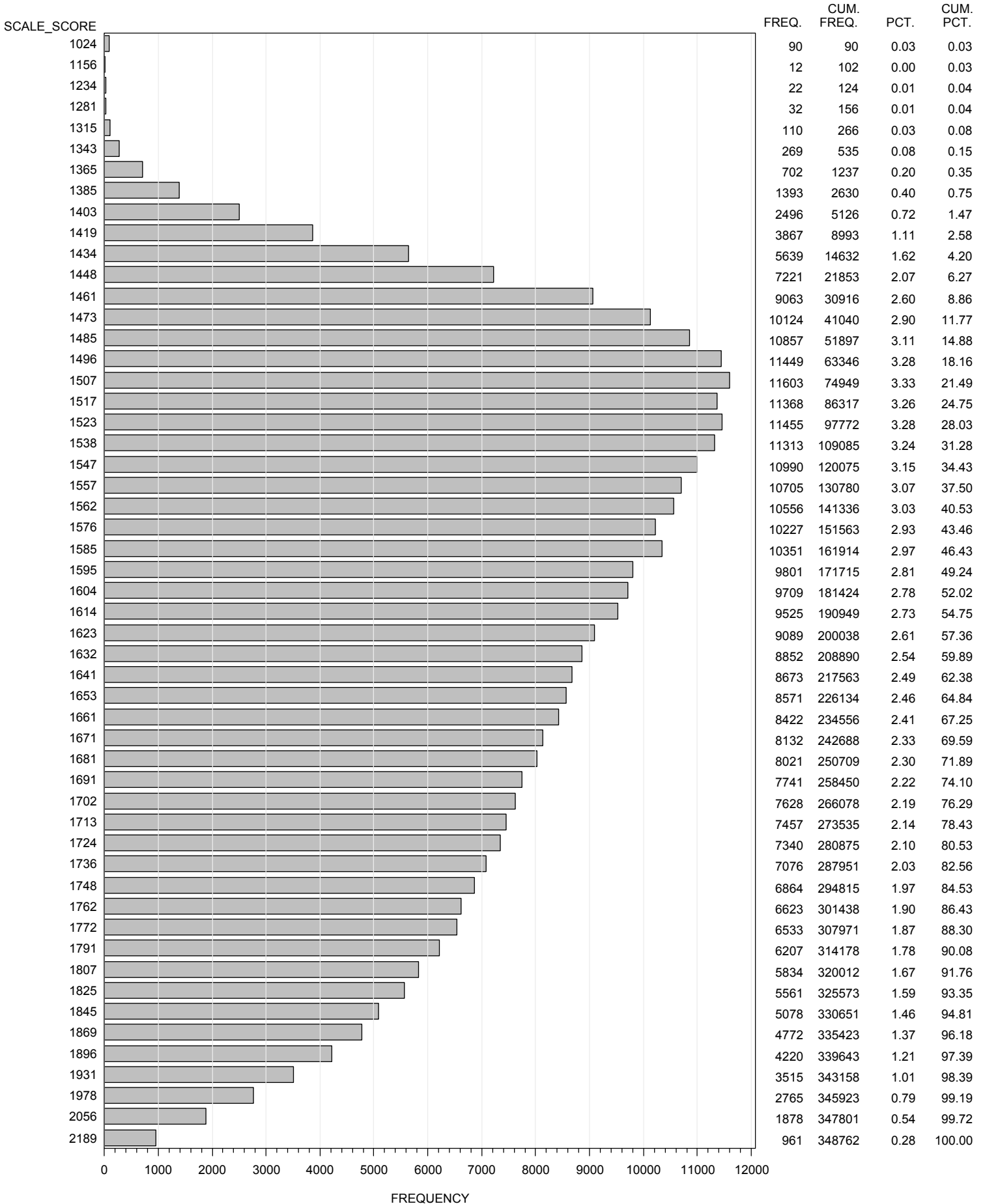
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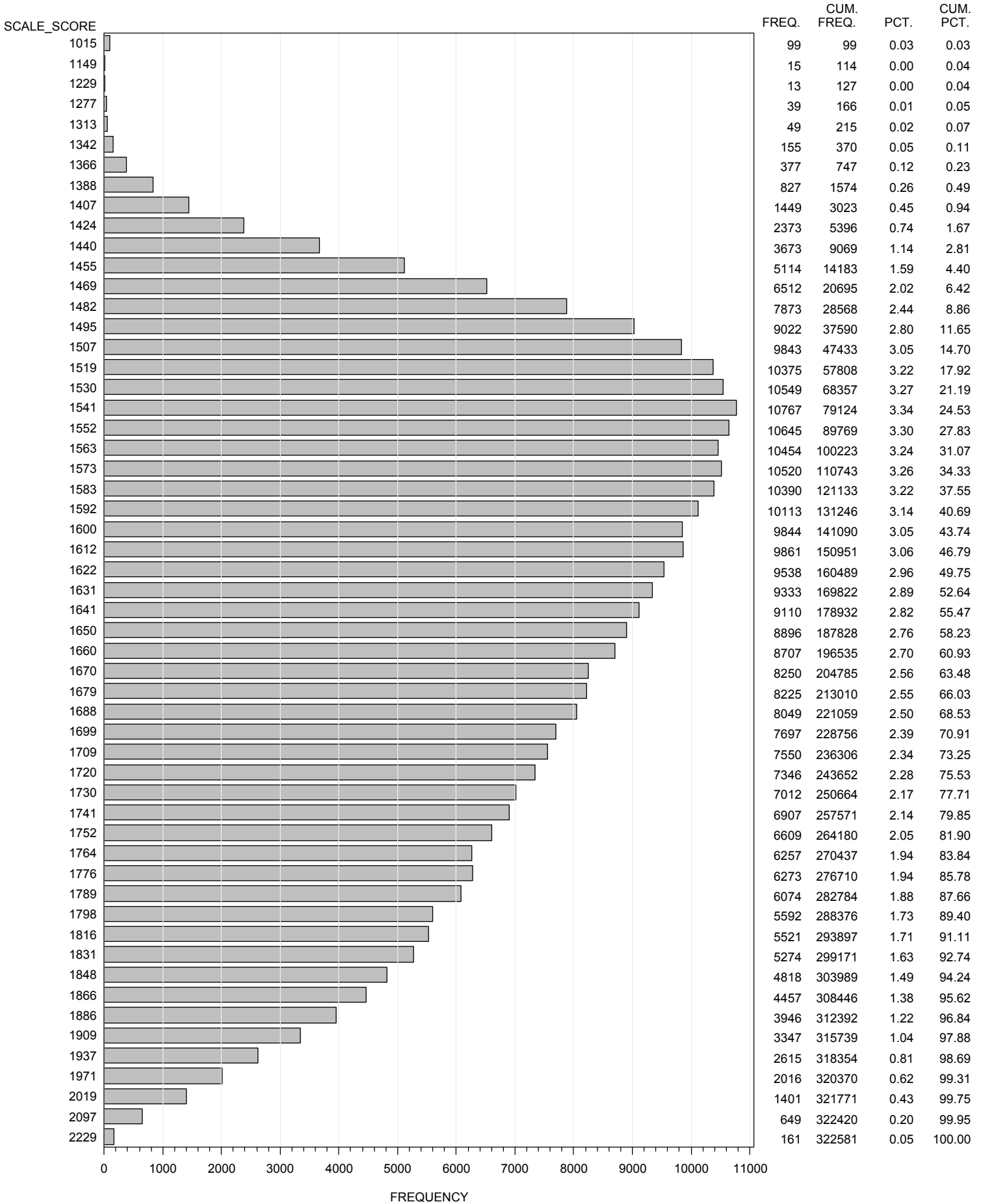
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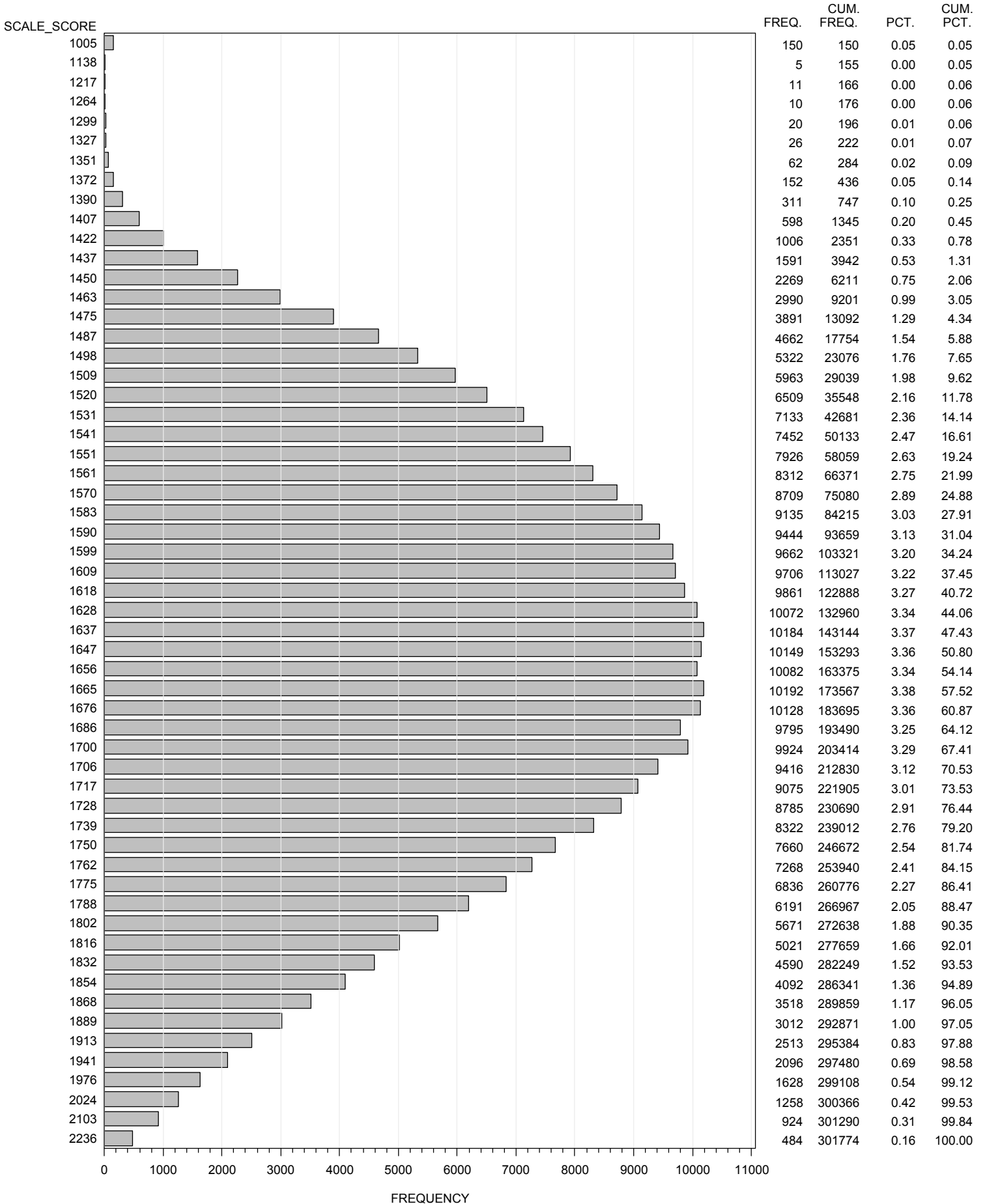
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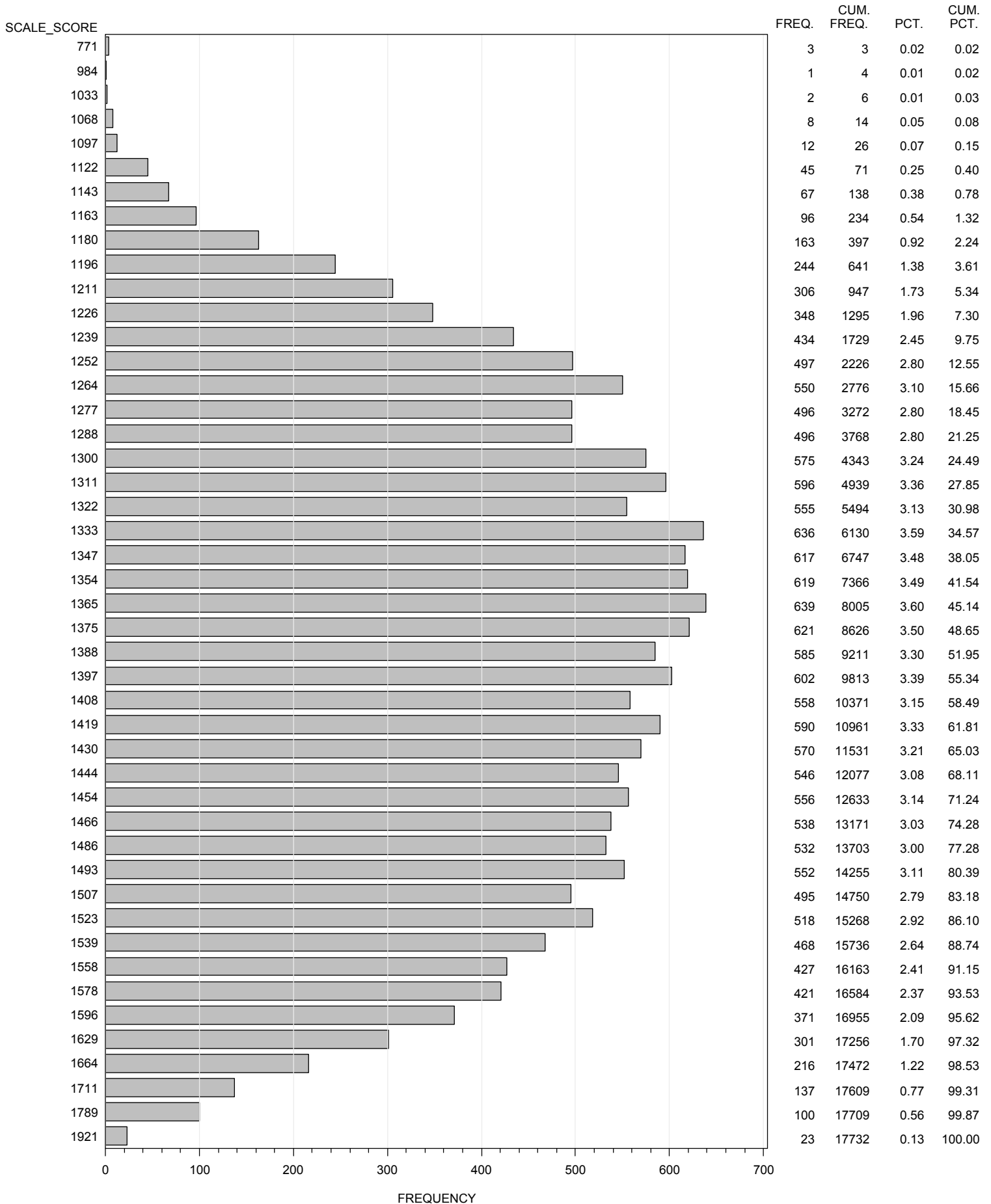
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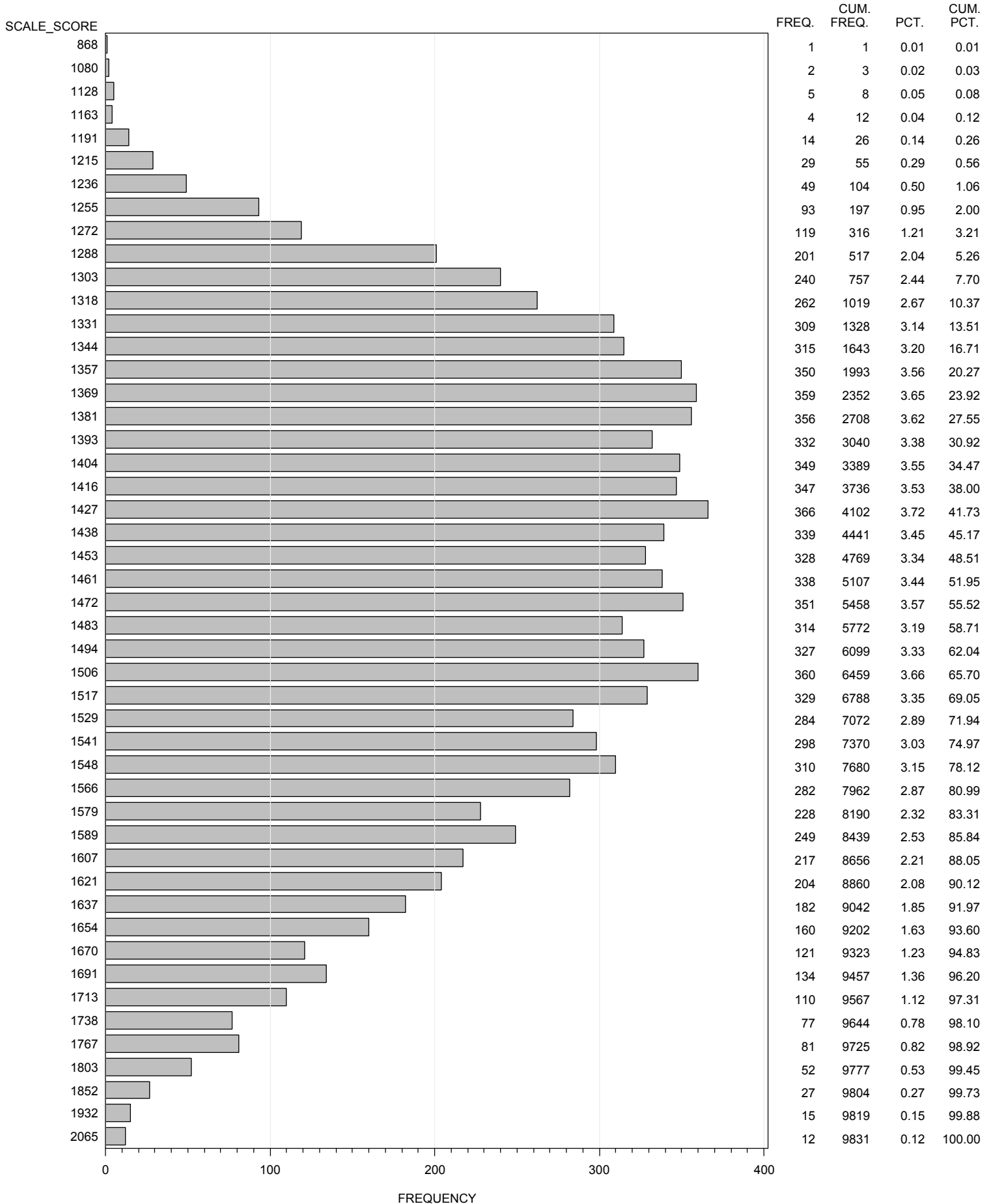
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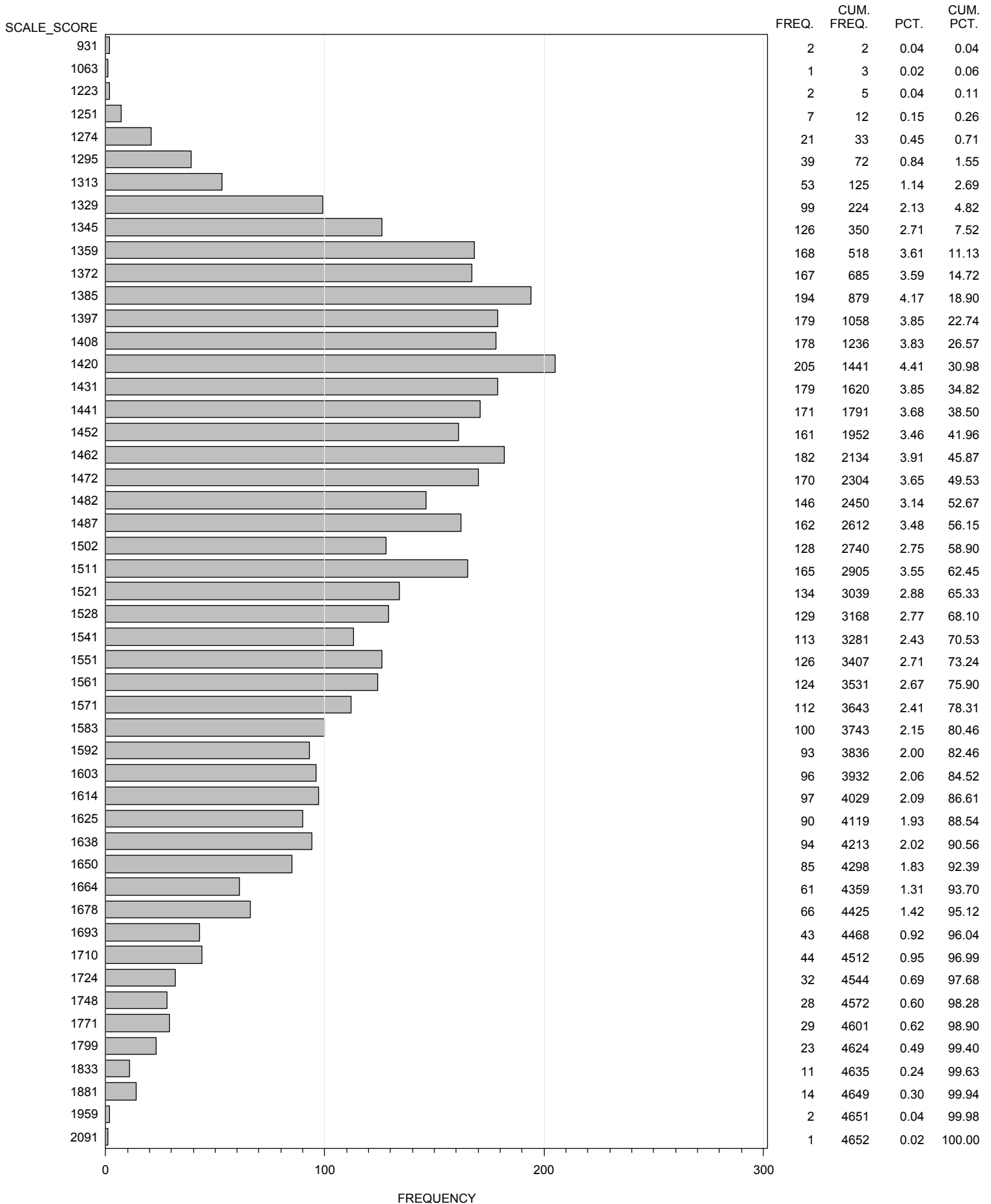
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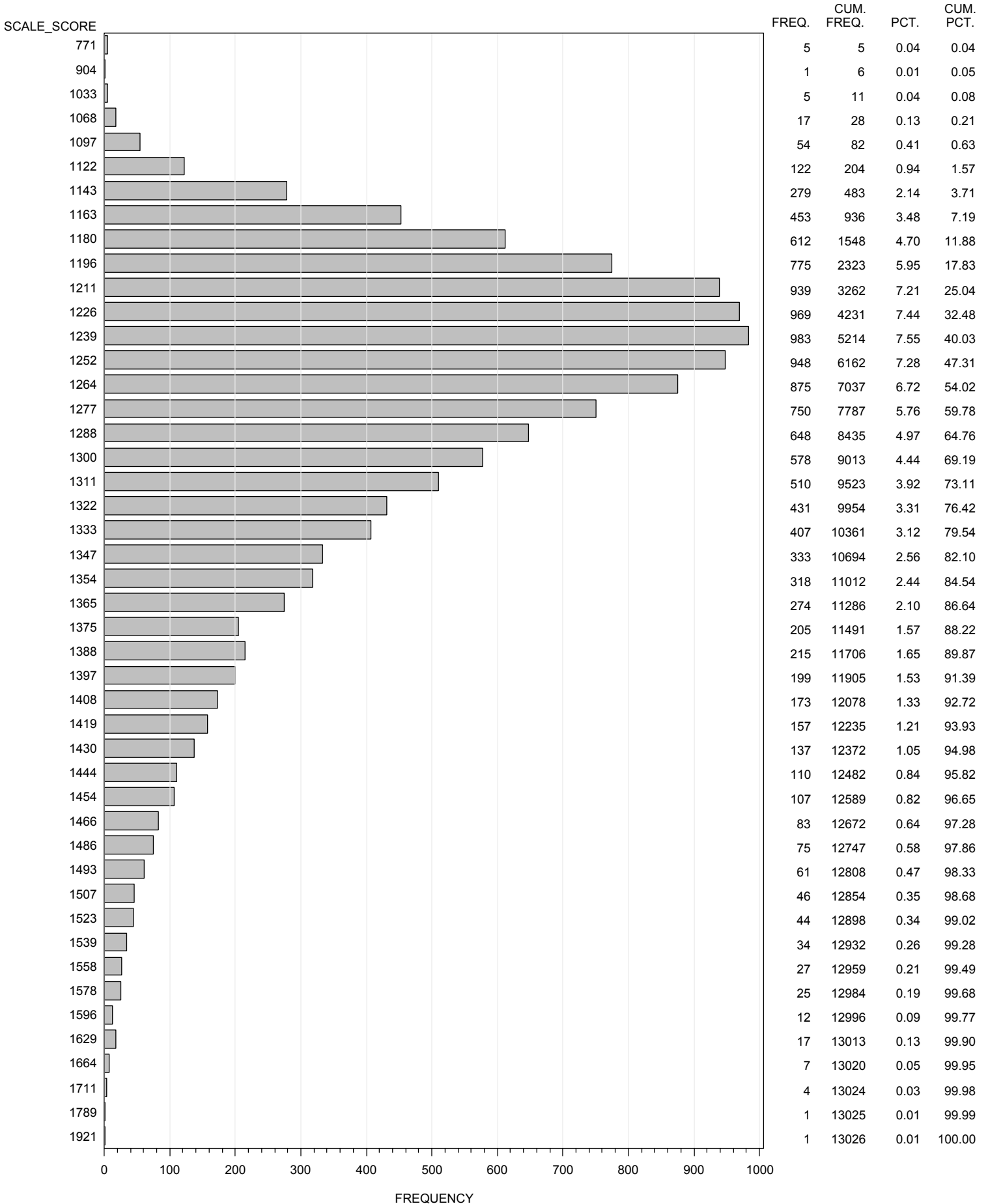
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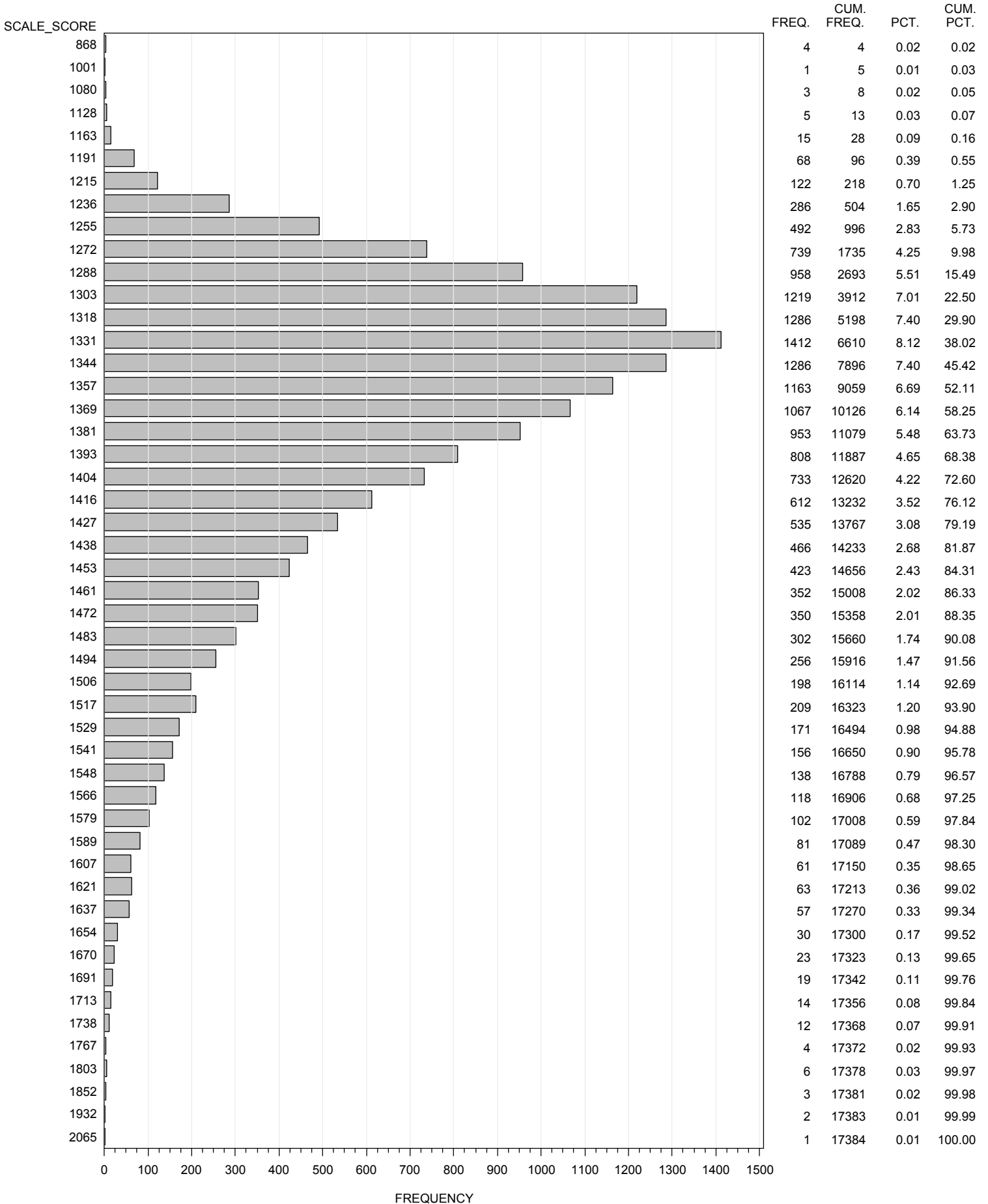
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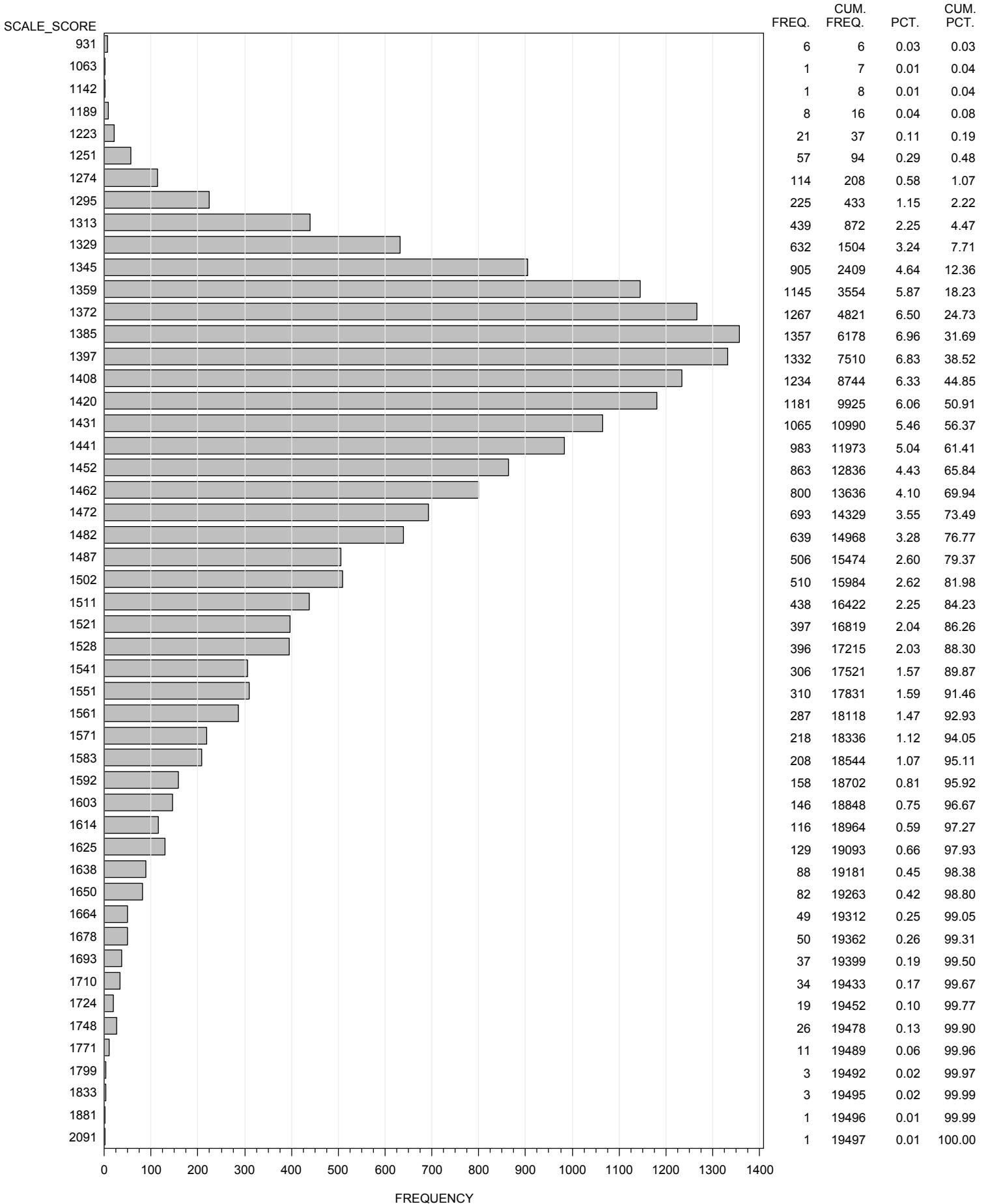
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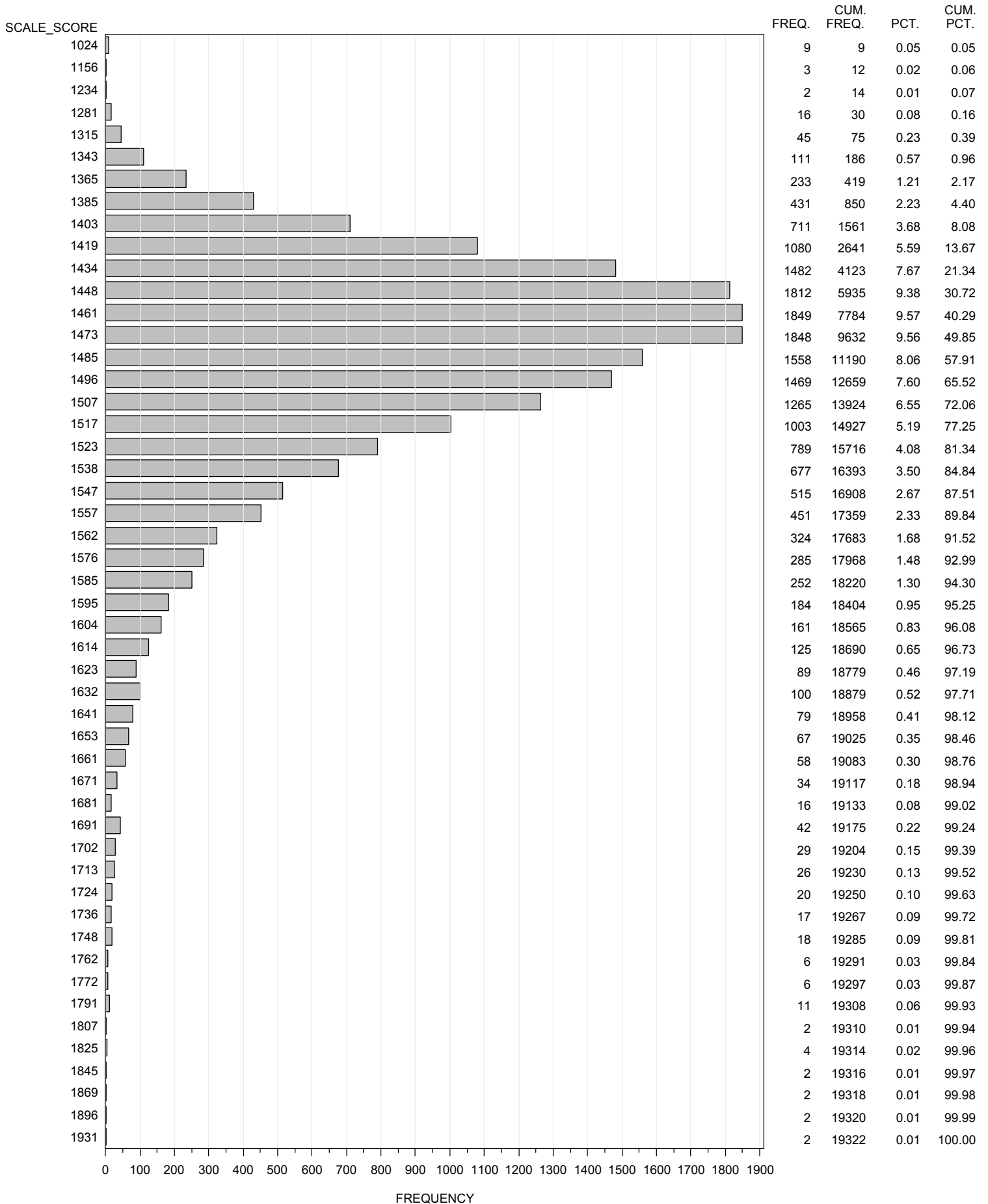
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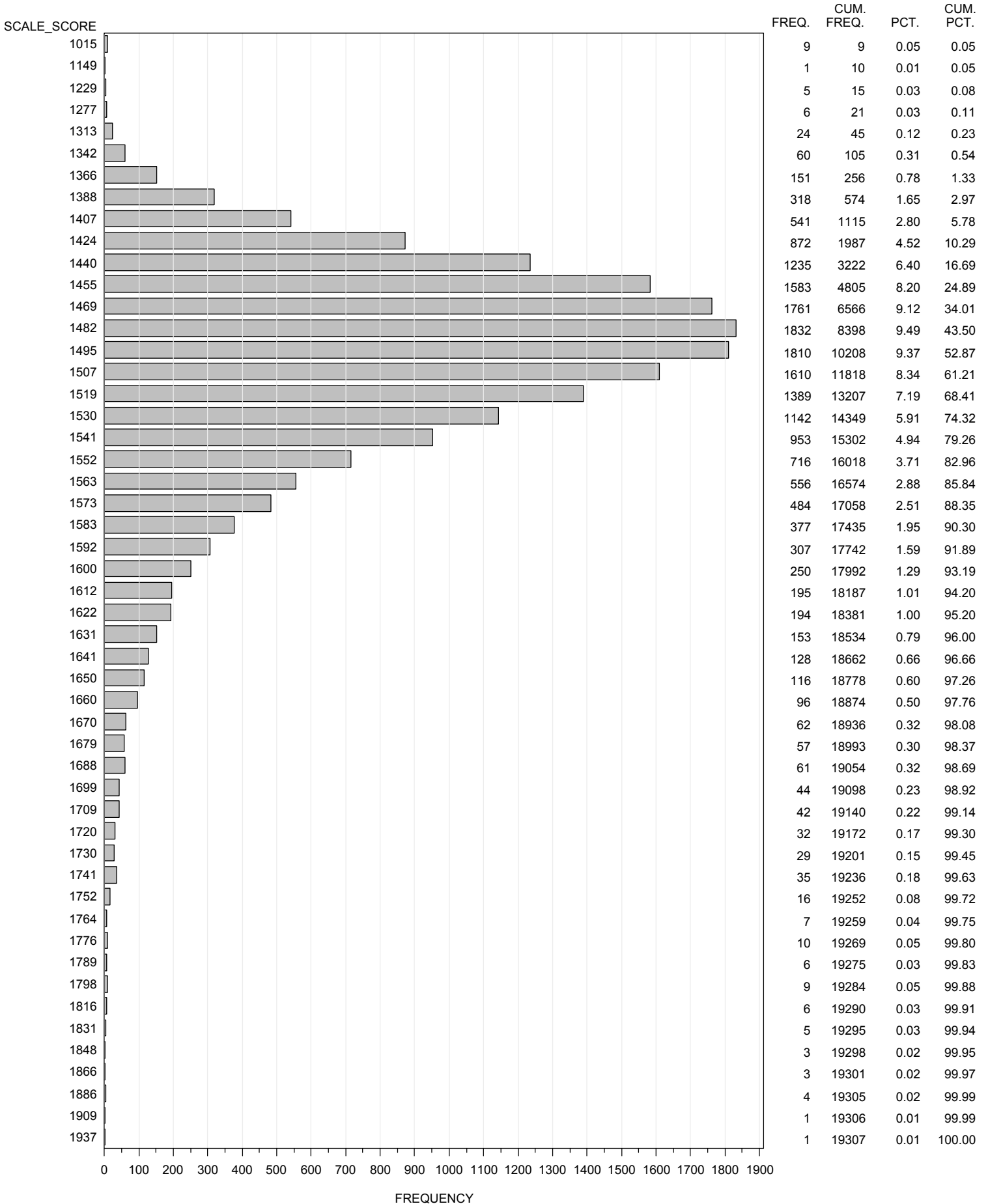
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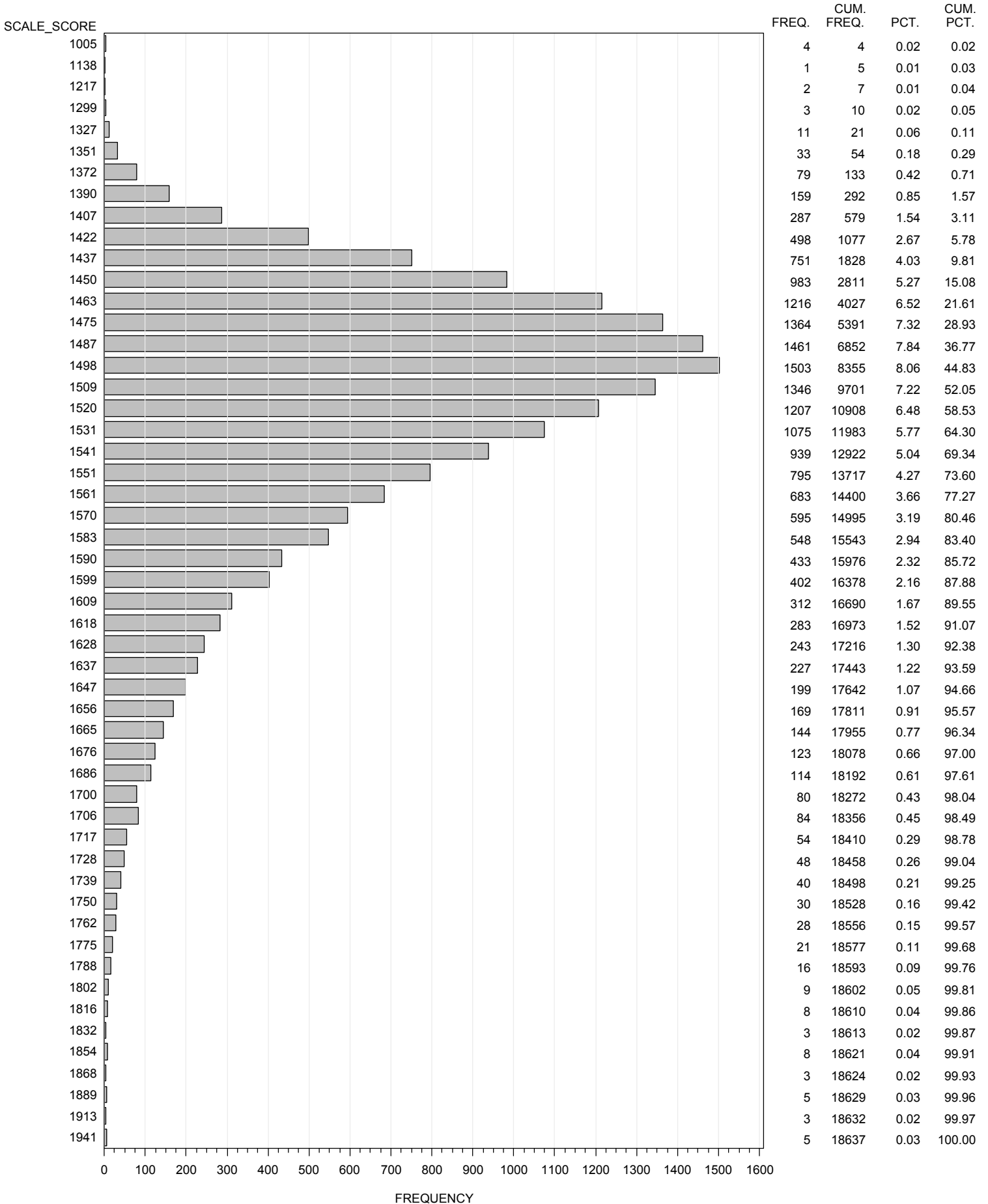
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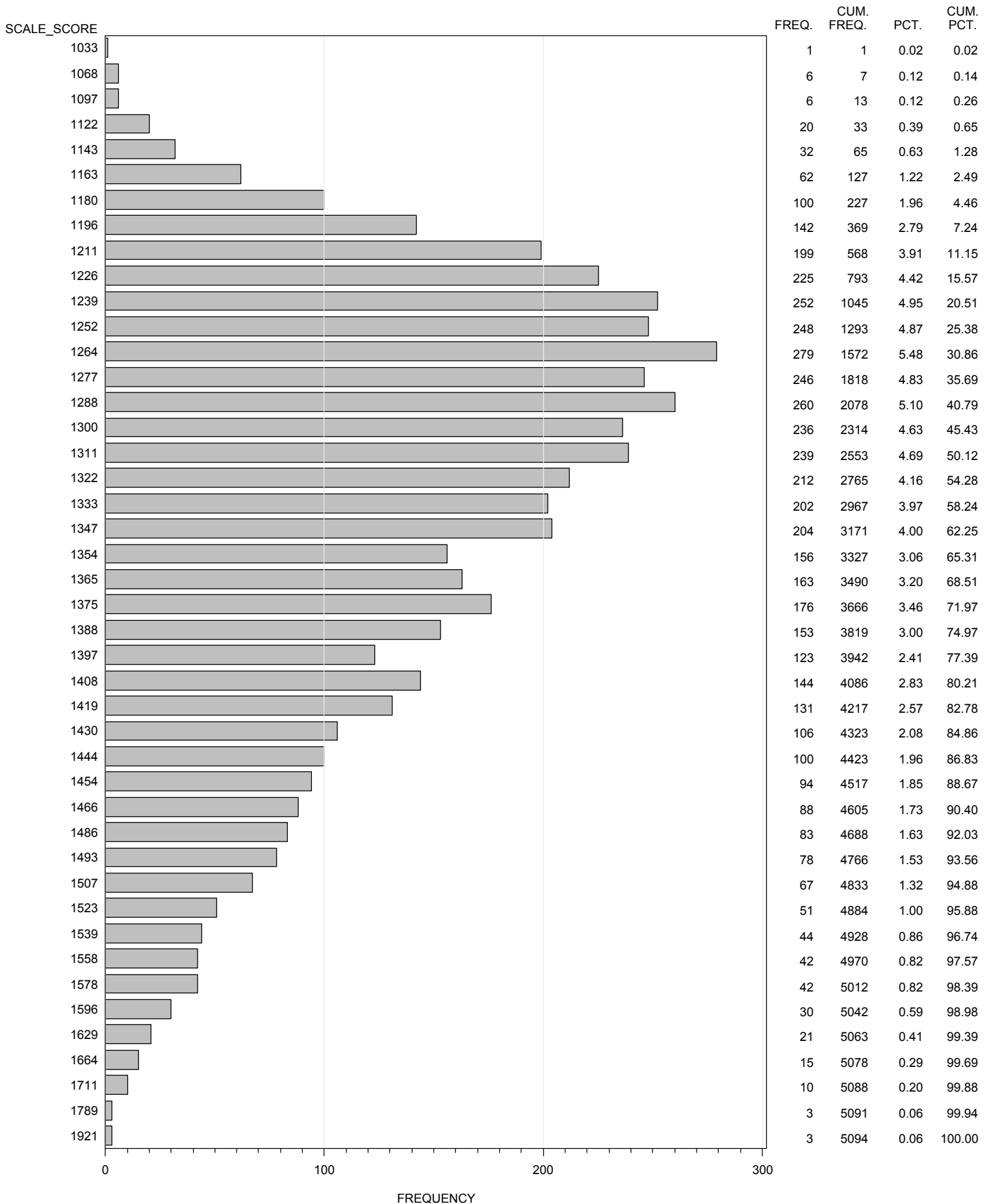
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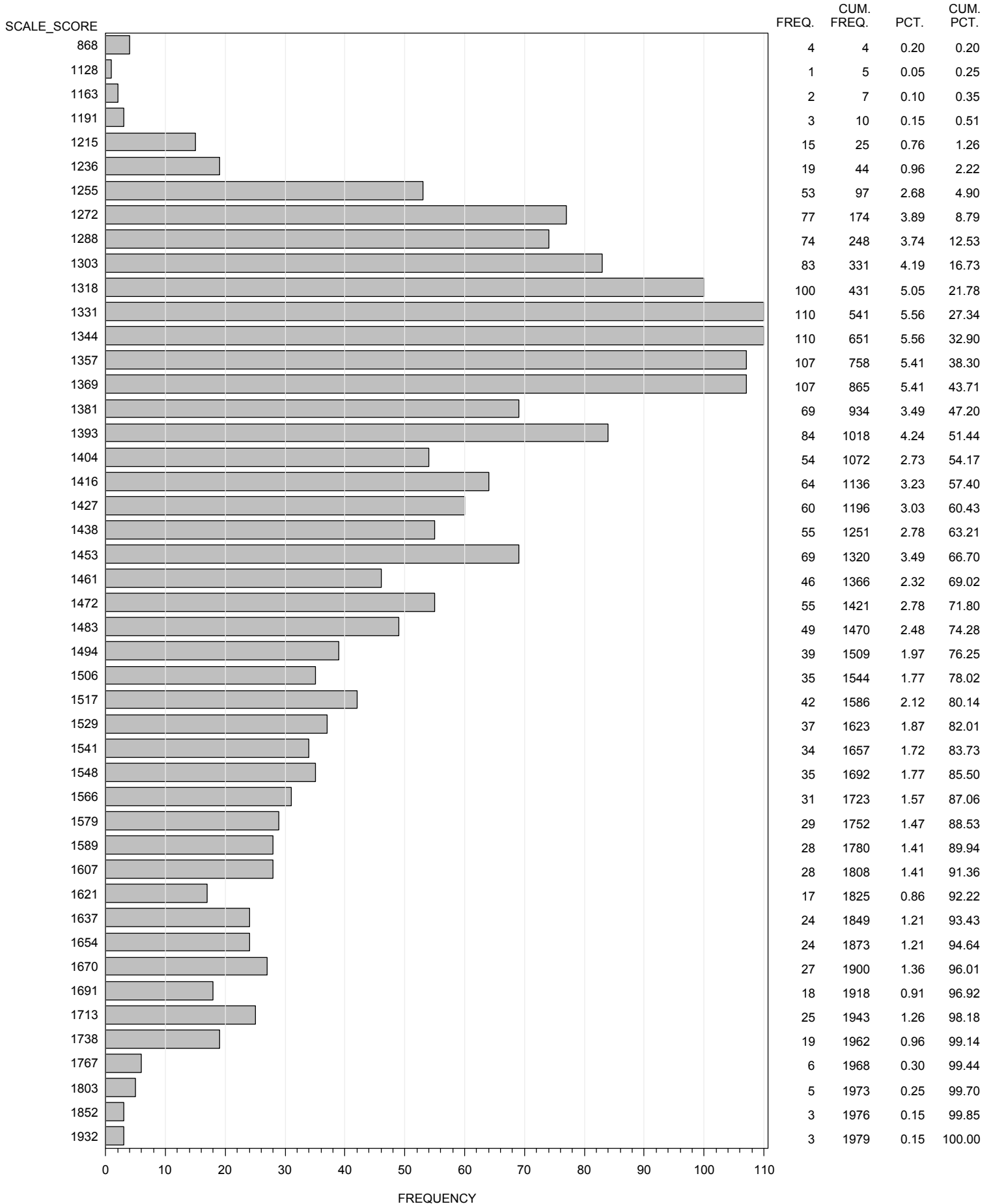
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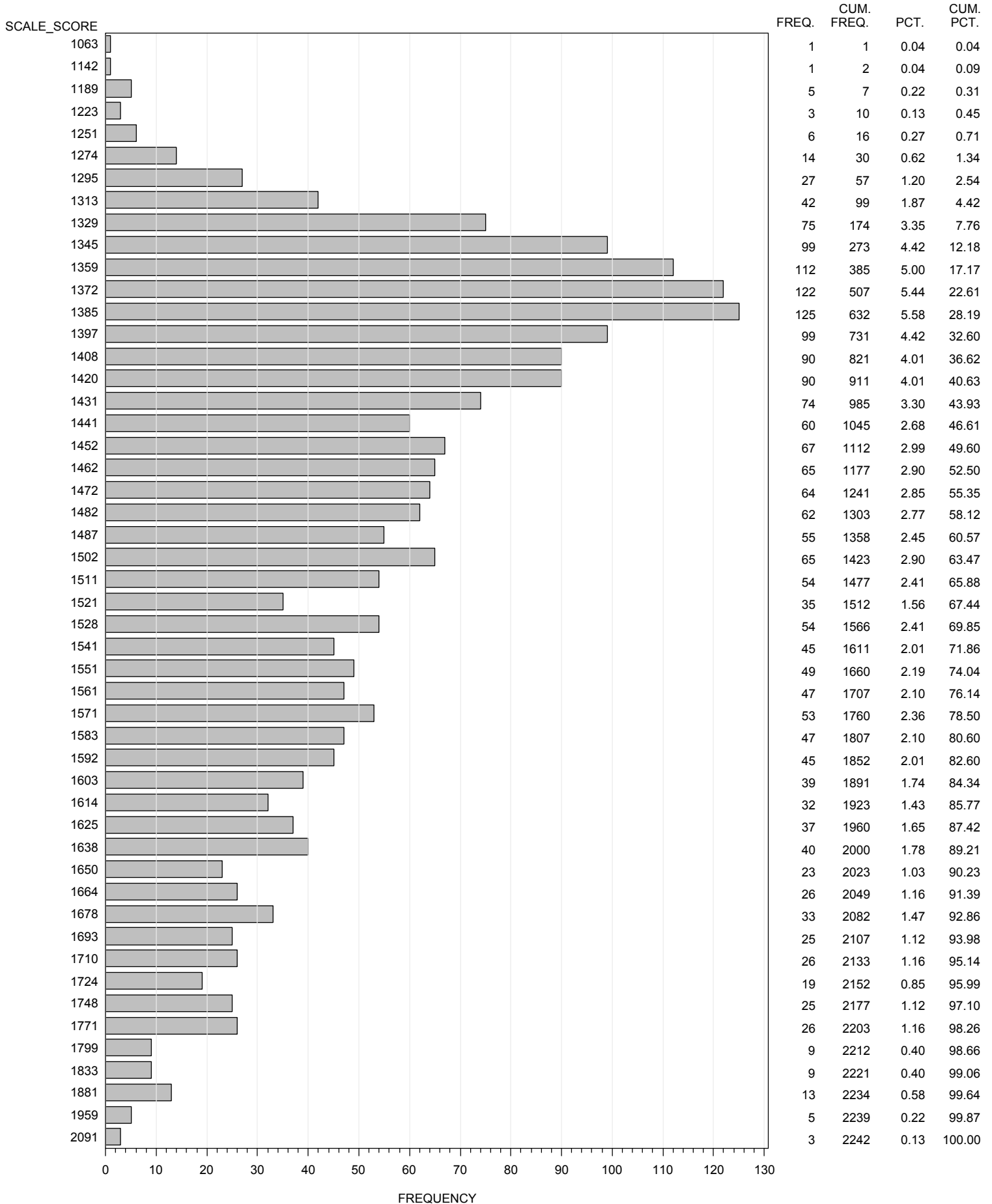
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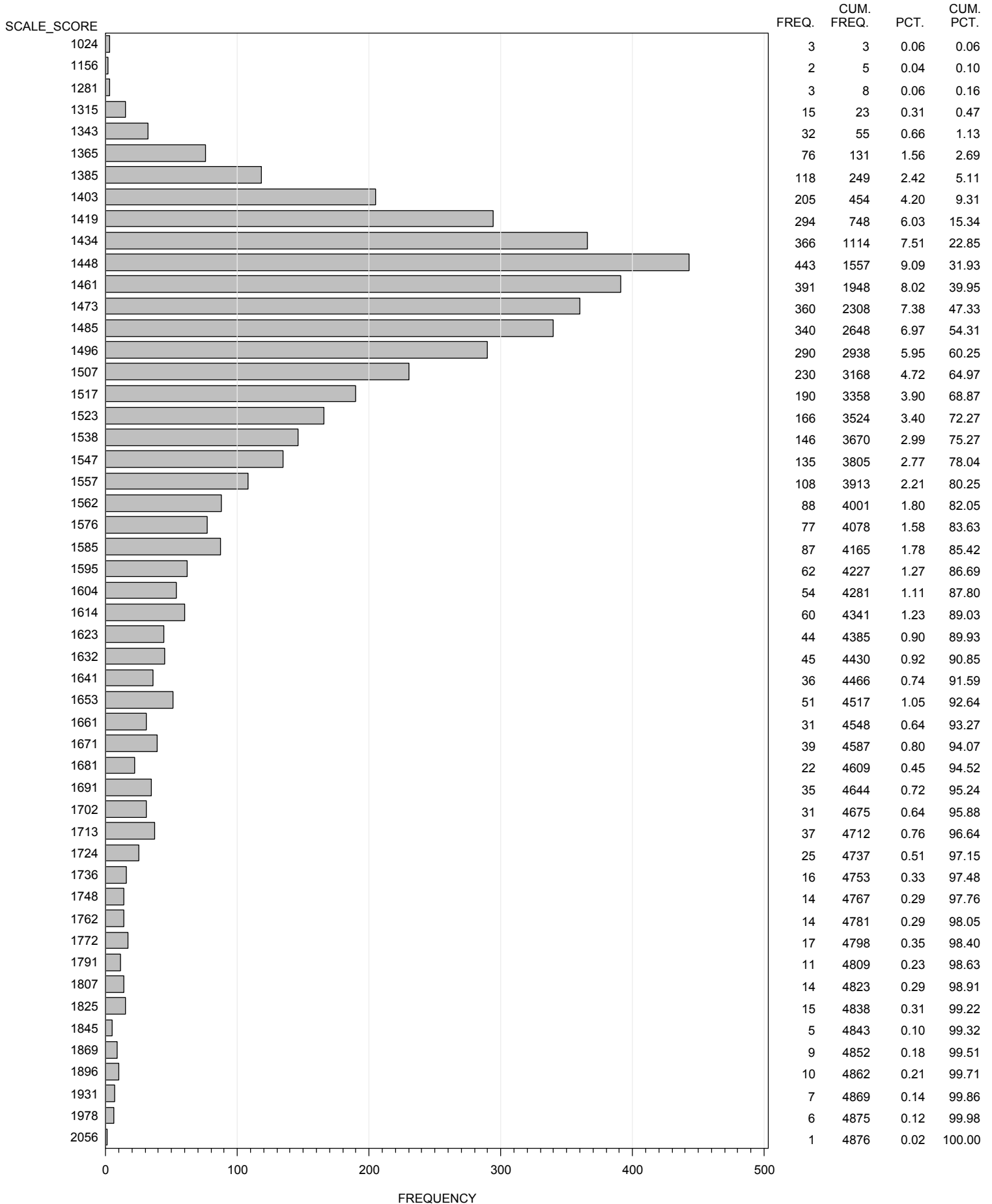
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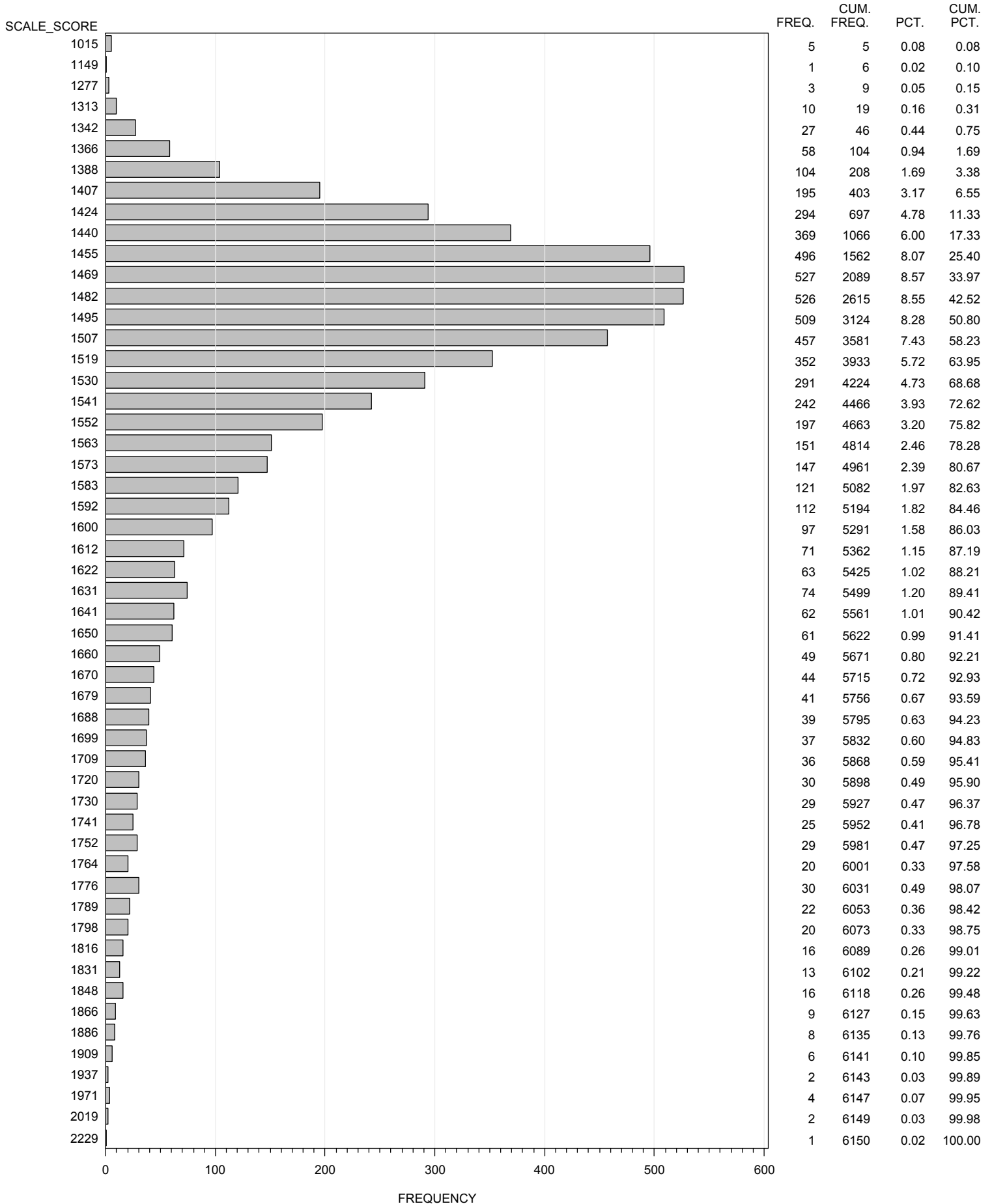
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 GRADE 6 MATHEMATICS
 ALL STUDENTS



FREQUENCY DISTRIBUTION - SCALE SCORES
 STAAR L SPRING 2015
 GRADE 7 MATHEMATICS
 ALL STUDENTS



FREQUENCY DISTRIBUTION - SCALE SCORES
 STAAR L SPRING 2015
 GRADE 8 MATHEMATICS
 ALL STUDENTS

