

Appendix table 1-4

Proficiency in specific mathematics knowledge and skill areas of students in grades 10 and 12, by student and family characteristics: 2002 and 2004

(Percent)

Student/family characteristic	Simple operations: whole numbers (level 1)		Simple operations: decimals, fractions, roots, and powers (level 2)		Simple problem solving (level 3)		Understanding intermediate-level concepts, multistep problem solving (level 4)		Complex problem solving, advanced knowledge (level 5)		Mean score	
	Grade 10	Grade 12	Grade 10	Grade 12	Grade 10	Grade 12	Grade 10	Grade 12	Grade 10	Grade 12	Grade 10	Grade 12
	All students.....	92	96	68	79	47	63	21	35	1	4	38
Sex												
Male.....	92	96	70	80	49	65	23	38	1	5	38	50
Female.....	92	96	67	78	45	61	19	33	1	3	37	48
Race/ethnicity												
White, non-Hispanic.....	96	98	79	86	59	73	27	44	1	5	41	52
Black, non-Hispanic.....	85	93	44	59	20	36	5	12	0	0	30	39
Hispanic.....	86	93	49	65	26	44	9	19	0	1	32	42
Asian/Pacific Islander.....	96	98	79	87	60	74	31	50	4	11	42	55
Mother's education												
<High school.....	84	92	46	60	23	38	7	15	0	1	31	40
High school diploma.....	92	96	63	75	39	56	15	27	0	2	35	46
Some college ^a	93	97	70	81	48	64	20	35	1	3	38	49
Bachelor's or higher degree.....	96	98	83	89	67	79	36	54	2	8	43	56
Socioeconomic status ^b												
Lowest quartile.....	86	93	48	62	25	40	8	16	0	1	31	41
Middle two quartiles.....	93	96	69	79	46	62	18	32	0	2	37	48
Highest quartile.....	98	99	87	93	72	83	39	58	3	9	44	57

^aIncludes vocational and technical education.

^bSocioeconomic status based on five equally weighted components: father's education, mother's education, family income, father's occupational prestige score, and mother's occupational prestige score.

SOURCES: National Center for Education Statistics, Education Longitudinal Study, spring 2002 and 2004; and National Science Foundation, Division of Science Resources Statistics, special tabulations.