

Chapter III: Answers to the 2004 AP Computer Science Exams

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Section I: Multiple Choice

Listed below are the correct answers to the multiple-choice questions, the percent of AP students who answered each question correctly by AP grade, and the total percent answering correctly.

Computer Science A Section I Answer Key and Percent Answering Correctly

Item No.	Correct Answer	Percent Correct by Grade					Total Percent Correct
		5	4	3	2	1	
1	E	94	85	77	72	44	71
2	C	96	93	92	90	87	91
3	D	95	81	69	63	44	68
4	D	99	97	97	94	80	92
5	D	91	80	72	64	52	70
6	B	99	99	98	96	74	90
7	C	98	95	92	90	67	85
8	B	98	95	91	88	79	89
9	C	94	91	87	84	63	81
10	E	82	54	39	32	22	44
11	E	88	84	80	79	50	72
12	C	95	84	80	76	56	75
13	D	90	74	61	50	25	56
14	B	95	83	69	59	45	68
15	B	91	76	62	50	31	59
16	D	86	74	71	66	42	64
17	B	93	74	51	41	31	57
18	B	78	57	46	41	26	47
19	E	82	61	44	33	14	44
20	D	70	54	39	34	20	42
21	B	94	74	55	46	35	59
22	E	56	26	15	11	8	22
23	E	94	80	66	57	36	64
24	A	84	65	48	39	20	49
25	D	72	44	30	23	17	36
26	D	89	67	53	48	48	61
27	D	66	57	45	36	21	43
28	E	73	63	53	47	23	49
29	D	50	23	16	12	10	22
30	C	85	69	60	54	41	60
31	E	70	62	56	50	27	50
32	C	67	40	28	20	11	32
33	B	55	26	16	13	13	24
34	C	98	85	62	43	16	57
35	C	93	69	43	35	30	53
36	D	56	24	13	12	10	23
37	B	95	82	61	44	22	58
38	C	92	71	51	41	21	52
39	E	82	50	28	18	14	38
40	C	93	82	69	65	44	68

Computer Science AB Section I Answer Key and Percent Answering Correctly

Item No.	Correct Answer	Percent Correct by Grade					Total Percent Correct
		5	4	3	2	1	
1	D	71	52	38	32	20	44
2	D	97	91	88	83	62	84
3	D	93	85	79	73	60	79
4	A	95	89	84	77	54	80
5	A	100	98	97	93	69	91
6	E	80	60	46	46	29	54
7	C	94	90	87	86	74	86
8	B	99	98	97	95	81	93
9	E	93	83	72	63	31	68
10	D	99	97	97	95	81	93
11	E	91	78	74	65	48	72
12	D	76	55	47	36	27	50
13	E	95	91	90	86	70	86
14	E	89	75	66	54	33	64
15	B	85	70	63	53	41	63
16	C	63	45	37	28	24	41
17	E	91	82	71	57	36	68
18	A	94	85	84	73	50	77
19	C	91	79	65	54	28	64
20	B	82	59	45	34	24	51
21	–	–	–	–	–	–	–
22	C	52	27	15	9	9	25
23	A	80	62	48	36	15	49
24	–	–	–	–	–	–	–
25	A	79	59	48	39	29	53
26	D	82	61	48	37	22	52
27	E	86	76	65	55	40	65
28	B	89	77	71	63	43	69
29	B	93	83	75	68	53	75
30	B	74	53	43	29	17	45
31	C	79	65	57	50	38	59
32	E	64	51	48	39	30	47
33	E	67	53	47	39	27	48
34	A	52	29	27	19	16	30
35	D	68	45	36	29	21	42
36	D	77	54	38	28	18	45
37	B	76	60	50	40	27	52
38	D	27	9	10	6	7	13
39	D	62	36	22	14	14	32
40	D	59	26	19	14	14	29

*Although 40 multiple-choice items were administered in Section I, items 21 and 24 were not used in scoring.

Analyzing Your Students' Performance on the Multiple-Choice Section

If you give your students the 2004 Computer Science A or Computer Science AB Exam for practice, you may want to analyze the results to find overall strengths and weaknesses in their understanding of AP Computer Science. The following diagnostic worksheets will help you do this. You are permitted to photocopy and distribute them to your students for completion.

1. In each category, students should insert a check mark for each correct answer.
2. Count the total number of correct answers for each category.

3. To compare the student's number of correct answers for a given category with the average student performance for that category, copy the number of correct answers to the "Number Correct" table at the end of the Diagnostic Guide.

In addition, under each item, the percent of AP students who answered correctly is shown, so students can analyze their performance on individual items. This information will be helpful in deciding how students should plan their study time. Please note that one item may appear in several different categories, as questions can cover different topics.

Diagnostic Guide for the 2004 AP Computer Science A Exam

Programming Fundamentals (Average number correct = 6.8)

Question #	9	12	14	15	16	23	34	37	38	39	40
Correct/Incorrect											
Percent of Students Answering Correctly	81	75	68	59	64	64	57	58	52	38	68

Data Structures (Average number correct = 5.5)

Question #	2	3	6	7	31	36	37	38	39
Correct/Incorrect									
Percent of Students Answering Correctly	91	68	90	85	50	23	58	52	38

Logic (Average number correct = 1.6)

Question #	1	4
Correct/Incorrect		
Percent of Students Answering Correctly	71	92

Algorithms/Problem Solving (Average number correct = 5.8)

Question #	2	6	7	11	13	18	29	36	37	39
Correct/Incorrect										
Percent of Students Answering Correctly	91	90	85	72	56	47	22	23	58	38