

American Mathematics Competitions  
**Analysis of the 2009 AMC 10 A Results**  
 Table of Item Difficulty for the 2009 Tabulation of responses for all Participants  
 Percent of Responses

ITEM	A	B	C	D	E	OMITS	?
1	0.26	0.27	0.42	7.26	91.25*	0.52	0.02
2	92.01*	1.44	1.00	1.09	1.72	2.72	0.02
3	1.93	8.56	73.59*	5.35	3.14	7.4	0.01
4	34.16*	7.06	4.83	7.65	14.71	31.56	0.03
5	10.47	4.99	5.68	3.42	52.13*	23.28	0.03
6	63.61*	3.11	6.98	3.58	1.24	21.47	0.02
7	5.79	3.99	33.26*	3.73	30.39	22.78	0.05
8	8.26	78.49*	3.91	1.62	1.51	6.18	0.02
9	8.44	27.77*	7.73	4.86	1.00	50.18	0.03
10	4.04	27.63*	5.41	11.14	2.00	49.76	0.02
11	2.01	2.53	3.67	61.81*	1.82	28.13	0.03
12	3.53	6.63	32.56*	7.59	6.76	42.90	0.02
13	20.08	4.81	3.73	12.25	20.21*	38.88	0.04
14	44.44*	1.65	5.32	4.13	10.99	33.44	0.03
15	2.52	3.42	4.40	6.84	51.54*	31.25	0.04
16	23.25	5.13	4.17	14.53*	6.04	46.85	0.02
17	4.01	10.51	11.70*	2.70	3.89	67.17	0.02
18	17.09	12.27	6.96	20.42*	8.00	35.23	0.03
19	5.13	14.00*	10.23	7.51	2.54	60.56	0.03
20	8.43	8.44	8.97	39.00*	1.92	33.22	0.02
21	3.15	3.03	16.24*	4.15	2.70	70.70	0.02
22	5.97	5.66	30.17	7.80*	3.34	47.04	0.03
23	3.11	2.93	5.34	3.81	12.91*	71.87	0.03
24	7.56	13.64	8.22*	4.45	6.54	59.56	0.03
25	9.43	5.55*	6.12	3.80	3.95	71.14	0.02

(\*) Correct Response

(?) Response the computer was unable to read due to incomplete erasures or two answers marked in the same column

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**Analysis of the 2009 AMC 10 B Results**  
 Table of Item Difficulty for the 2009 Tabulation of responses for all Participants  
 Percent of Responses

ITEM	A	B	C	D	E	OMITS	?
1	0.72	73.66*	6.93	14.16	2.45	2.04	0.04
2	2.28	1.27	90.44*	0.84	0.49	4.66	0.01
3	1.03	3.73	76.10*	12.29	1.25	5.59	0.00
4	2.24	2.98	73.51*	10.36	2.46	8.45	0.01
5	8.97	2.72	17.98	55.81*	3.55	10.93	0.04
6	1.11	2.01	5.93	74.22*	3.53	13.18	0.01
7	10.77	16.88	53.06*	8.05	4.95	6.26	0.04
8	3.46	43.62*	7.49	28.59	3.54	13.30	0.01
9	49.15*	3.75	5.01	7.24	3.13	31.71	0.01
10	9.70	2.83	4.30	4.70	44.57*	33.89	0.02
11	59.28*	6.74	5.30	5.38	2.95	20.32	0.04
12	31.24*	11.96	8.22	13.81	9.15	25.59	0.03
13	3.19	12.38	45.25*	8.14	10.03	20.98	0.03
14	5.28	25.19	20.64	17.93*	7.42	23.52	0.03
15	7.66	6.80	3.60	6.08	53.91*	21.91	0.04
16	3.83	23.87*	5.23	3.43	6.05	57.58	0.01
17	17.26	12.10	30.83*	2.58	1.14	36.07	0.02
18	3.62	5.71	6.72	26.54*	3.33	54.06	0.02
19	22.90*	18.96	10.44	9.86	4.08	33.71	0.04
20	5.41	27.89*	6.92	1.95	3.16	54.66	0.02
21	7.19	15.31	5.62	17.44*	4.35	50.07	0.02
22	4.13	9.57*	5.69	6.46	2.61	71.52	0.02
23	5.39	8.01	14.44*	6.91	5.18	60.03	0.04
24	18.28*	4.57	5.00	4.11	6.35	61.67	0.02
25	14.51	14.27*	9.06	6.80	6.13	49.22	0.02

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**Analysis of the 2009 AMC 12 A Results**

Table of Item Difficulty for the 2009 Tabulation of responses for all Participants  
Percent of Responses

ITEM	A	B	C	D	E	OMITS	?
1	88.07*	6.38	0.86	0.55	1.67	2.45	0.02
2	0.78	4.04	88.44*	2.81	1.72	2.18	0.03
3	5.75	78.43*	3.78	5.54	2.32	4.14	0.03
4	94.34*	0.82	0.65	0.78	1.46	1.93	0.03
5	1.22	1.71	2.28	81.60*	1.24	11.92	0.03
6	21.00	4.36	3.27	12.59	37.21*	21.53	0.04
7	2.33	30.51*	6.21	3.01	2.59	55.32	0.03
8	60.06*	1.68	5.61	4.39	8.95	19.27	0.04
9	2.58	4.37	4.93	36.85*	5.35	45.89	0.04
10	3.24	6.21	41.04*	8.78	6.51	34.17	0.05
11	1.96	2.52	3.58	5.67	70.01*	16.19	0.07
12	12.25	28.47*	6.43	7.47	3.36	41.96	0.05
13	9.79	10.77	13.37	20.84*	5.75	39.44	0.05
14	3.62	7.99*	8.76	11.40	5.74	62.46	0.03
15	7.75	5.58	8.42	26.36*	5.58	46.27	0.03
16	12.13	7.64	7.80	9.09*	3.31	60.01	0.03
17	4.89	4.33	10.27*	5.13	8.17	67.17	0.04
18	14.08	6.89*	6.09	3.08	3.64	66.20	0.02
19	7.73	8.31	8.71*	7.12	8.18	59.92	0.04
20	3.35	2.99	7.02	4.76	11.12*	70.74	0.03
21	5.67	4.50	6.17*	3.00	4.05	76.58	0.03
22	3.02	4.72	4.72	4.57	3.04*	79.89	0.03
23	1.93	3.39	3.91	3.24*	1.24	86.27	0.02
24	8.13	5.40	4.29	3.40	1.51*	77.25	0.02
25	3.09*	5.05	4.95	6.01	7.78	73.09	0.03

(\*) Correct Response

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**Analysis of the 2009 AMC 12 B Results**

Table of Item Difficulty for the 2009 Tabulation of responses for all Participants  
Percent of Responses

ITEM	A	B	C	D	E	OMITS	?
1	0.51	80.57*	5.92	10.03	2.24	0.69	0.04
2	0.71	2.71	80.31*	12.24	0.85	3.16	0.02
3	6.55	1.94	16.51	66.36*	2.31	6.30	0.03
4	1.64	2.04	81.52*	8.74	1.67	4.37	0.02
5	0.75	1.35	4.49	82.41*	2.57	8.39	0.03
6	8.56	13.69	63.30*	6.71	3.95	3.73	0.06
7	3.93	57.08*	7.25	20.49	3.20	8.01	0.03
8	4.58	5.01	2.72	4.73	69.67*	13.27	0.03
9	57.29*	4.61	2.90	5.81	1.70	27.68	0.02
10	41.11*	18.29	9.73	7.85	3.23	19.75	0.04
11	3.95	25.09	20.34	23.95*	7.74	18.89	0.04
12	2.75	3.06	6.37	3.58	40.20*	44.00	0.04
13	3.58	4.08	5.67	28.28*	5.94	52.40	0.03
14	11.83	11.43	40.05*	2.31	1.14	33.21	0.03
15	1.31	53.01*	8.58	6.75	4.77	25.56	0.01
16	3.98	9.83*	3.73	3.09	1.78	77.59	0.01
17	19.11	20.01*	8.41	6.05	4.79	41.60	0.03
18	4.86	7.84	17.04*	5.93	5.77	58.55	0.03
19	1.73	3.80	4.67	2.36	5.39*	82.01	0.03
20	3.12	3.96	4.94*	2.62	3.63	81.71	0.02
21	7.13*	5.75	5.64	11.52	20.52	49.42	0.04
22	2.38	3.17	4.98*	5.78	1.65	82.01	0.03
23	2.33	3.68	4.11	5.98*	2.13	81.76	0.02
24	6.95	6.84*	3.54	4.74	1.92	75.99	0.03
25	7.45	4.00	4.87	4.13	4.12*	75.41	0.02

(\*) Correct Response

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