

550.400: Mathematical Modeling and Consulting

Lecture Notes

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Outline

Guessing Ages

How to Play

Guessing ages. For each card your group is given, estimate the age of the person on the card and write your guess in the table below in the row corresponding to that numbered card. Later, you will be told the true ages and you can compute your errors. The error is defined as estimated minus actual age.

Card	Estimated age	Actual age	Error
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Example



Sample output

Group	Card										Avg. abs. error	Students in group	
	1	2	3	4	5	6	7	8	9	10		#	Sex
A	+14	-6	+5	+19	0	-5	-9	-1	-7	-7	7.3	3	F
B	+8	0	+5	0	+5	-1	-8	-1	-8	0	3.7	4	F
C	+6	-5	+6	+3	+1	-8	-18	+1	-9	-6	6.1	4	M
D	+10	-7	+3	+3	+2	-2	-13	+6	-7	-7	6.0	2	M/F
E	+11	-3	+4	+2	-1	0	-17	0	-14	+3	5.5	2	F
F	+13	-3	+3	+5	-2	-8	-9	-1	-7	0	5.1	3	F
G	+9	-4	+3	0	+4	-13	-15	+6	-7	+5	6.6	4	M
H	+11	0	+2	+8	+3	+3	-15	+1	-7	0	5.0	4	M
I	+6	-2	+2	+8	+3	-8	-7	-1	+1	-2	4.0	4	F
J	+11	+2	+3	+11	+1	-8	-14	-2	-1	0	5.3	4	F
Truth	29	30	14	42	37	57	73	24	82	45			

Fig. 2.2 Errors in age guesses from a class of eighth graders, as displayed on the blackboard. For the first two cards, we wrote the guessed and true ages, then we switched to writing the true age and the estimation error for each group. At the end, the groups were compared using the average of the absolute values of the errors. The sexes and group sizes are shown because one of the students in the class commented that the girls' guesses were, on average, more accurate.