

**Text** Sect 6.1: Practice Pb., Pb. 17, 19, 25; Sect. 6.5 : Practice Pb., Pb. 3; Sect. 6.6 : Practice Pb., Pb. 3, Pb. 11.

**1** (Recommender systems) Paul, Jane, and Ann, share information about their likes and dislikes of movies. They rate films they see with a scale of 0 to 10, (10 means they liked the movie very much). Here is the status of their table of ratings when Ann was interested in a new movie ('Title 6'):

	Title 1	Title 2	Title 3	Title 4	Title 5	Title 6
Paul	4	9	2	7	8	3
Jane	8	3	6	4	3	8
Ann	4	8	1	4	6	?

Using titles 1 to 5 find a set of coefficients that 'predict' Ann's ratings using a linear combination of Paul's and Jane's ratings. Predict her rating of title 6.