

This problem concerns conjoint analysis.

A large-scale property developer engages a researcher to estimate the potential demand for different types of inner-city apartments. The developer asked the researcher to consider the following attributes and levels:

Attribute	Levels
View	Sea or City skyline
Interior design	Classical or contemporary
Number of bedrooms	2 or 3

The researcher decides to conduct a fractional factorial experiment, according to the design shown in the table below.

Profile	View	Interior Design	No. of. Bedrooms
1	Sea view	Contemporary	3
2	City skyline	Classical	2
3	City skyline	Contemporary	2
4	Sea view	Classical	3
5	Sea view	Contemporary	2
6	City skyline	Classical	3

The preferences for one of the study participant resulted in following regression coefficients.

<i>Coefficients</i>	
Sea view	0
Classical design	-1
2 bedrooms	2

The following parts of the question refer to this study participant.

- i) Calculate the utility for each possible profile.
- ii) If all possible profiles were available for purchase, estimate the purchase probability of each profile.
- iii) Calculate the importance of each attribute.