

# Answering sheet Assignment Marketing Models

## Student information

Name:

Student Number:

## Details Data

Number of the dataset used for solving the exercise:

## Details Coding

Which computer language/program did you use?:

What was the version number of the software that you used?:

## Estimation Results:

Fill in the next table using your estimation output:

parameter	ML estimate	standard error
Heinz 28 ounces	0	N.A.
Heinz 32 ounces		
Heinz 40 ounces		
Hunts 32 ounces		
price		
display		
feature		

Maximum Log Likelihood value:

McFadden  $R^2$ :

## Partial Effects:

Fill in the table with average partial effects of prices where element  $(j,k)$  denotes the marginal change in the choice probability of brand  $j$  due to a change in the price of brand  $k$ .

brand	average partial effects of price			
	Heinz 28 ounces	Heinz 32 ounces	Heinz 40 ounces	Hunts 32 ounces
Heinz 28 ounces				
Heinz 32 ounces				
Heinz 40 ounces				
Hunts 32 ounces				

**Effects of Hunts display promotion:**

Fill in the table with the average effects of a display promotion for Hunts 32 ounces (with no feature promotion for Hunts and no feature nor display promotion for any other brand-sizes) on the probabilities of all 4 brand-sizes relative to a scenario in which there are no feature nor display promotions for any brand-sizes (including Hunts).

brand	Heinz 28 ounces	Heinz 32 ounces	Heinz 40 ounces	Hunts 32 ounces
Effect				

**Hausman Test:**

Test the assumption of the independence of irrelevant alternatives by implementing a Hausman test comparing the unrestricted model with a restricted model that does not include the Heinz 40 ounces observations.

Test Statistic	
P-value	