

Business Mathematics (BK/IBA) – Quantitative Research Methods I (EBE) Digital test 2

Question 1

b)

Family name	Galt
Given name	John
Student number	1234567
Programme	BK
Date	5 October 2015

Question 2

a)

$$S_i = 2S_{i-1}$$

where S_i is the sales in year i .

b)

$$c = \ln \frac{\pi(4 + ab^2)}{\sqrt{a + b}}$$

Question 3

a)

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	0	-1	2	-3		0		0.056911	0.121951	0.219512	0.056911		0.398374
2	1	4	0	5		0		0.178862	0.097561	-0.02439	0.178862		1.252033
3	4	-3	0	-2		0		0.357724	0.195122	-0.04878	-0.14228		-0.99593
4	0	4	-2	0		7		-0.15447	0.097561	-0.02439	-0.15447		-1.0813

b)

excel_digitaltest_2_answers.xlsx - Microsoft Excel

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	-20.3	12.5	5.6		2.3		-20.3	65.2		4663.13	-1205.67	166.68		51165.04		51162.74
2	65.2	-14.6	4.3		-27.5		12.5	-14.6		-1205.67	369.41	7.22		-12616.3		-12588.8
3					43.7		5.6	4.3		166.68	7.22	49.85		2363.259		2319.559
4																
5																

c)

Solver Parameters

Set Objective:

To: Max Min Value Of:

By Changing Variable Cells:

Subject to the Constraints:

-
-
-

Make Unconstrained Variables Non-Negative

Select a Solving Method:

Solving Method
Select the GRG Nonlinear engine for Solver Problems that are smooth nonlinear. Select the LP Simplex engine for linear Solver Problems, and select the Evolutionary engine for Solver problems that are non-smooth.

Buttons: Add, Change, Delete, Reset All, Load/Save, Options, Help, Solve, Close

d)

Formula for f in B2	=B\$1^2-2*\$A2
-----------------------	----------------

Do not forget to save this file regularly!