

Jackson Hill
Software Testing
Exam 1

Test Cases from EPs

TCI	Parameter	EP	Test Case
EP 1	double kwh	DOUBLE.MIN* - 0	1.1
EP 2	double kwh	1 - 500	1.2
EP 3	double kwh	500.01 - 1500	1.3
EP 4	double kwh	1500.01 - DOUBLE.MAX*	1.4
EP 5	bool hasSmartDevice	T	1.2, 1.3
EP 6	bool hasSmartDevice	F	1.1, 1.4
EP 7	bool optOut	T	1.2, 1.4
EP 8	bool optOut	F	1.1, 1.3

TC ID	TCI	kwh	SmartDevice	OptOut	Rebate
1.1	1,6,8	-10	F	F	Error
1.2	2,5,7	250	T	T	0
1.3	3,5,8	750	T	F	.10
1.4	4,6,7	1750	F	T	.05

*Limits of a double are not practical to test in this scenario so I will use an arbitrarily large number

Test Cases from BVA

TC ID	kwh	SmartDevice	OptOut	Rebate
2.1	DOUBLE.MIN*	F	F	Error
2.2	0	F	F	Error
2.3	.01	T	T	0
2.4	499.99	F	T	0
2.5	500	T	F	0
2.6	500.01	T	T	.15
2.7	1499.99	T	F	.10
2.8	1500	T	T	.15
2.9	1500.01	F	F	.05
2.10	DOUBLE.MAX*	T	T	.20

*Limits of a double are not practical to test in this scenario so I will use an arbitrarily large number

Test Cases from Decision Table

Crossed Out Due to Impossible Combinations

Crossed Out Due to Duplication

Accepted into final Test Suite

TC ID	kwh <= 500	500 < kwh <= 1500	kwh > 1500	SmartDevice	OptOut	Rebate
3.1	T	T	T	T	T	
3.2	T	T	T	T	F	
3.3	T	T	T	F	T	
3.4	T	T	T	F	F	
3.5	T	T	F	T	T	
3.6	T	T	F	T	F	
3.7	T	T	F	F	T	
3.8	T	T	F	F	F	
3.9	T	F	T	T	T	
3.10	T	F	T	T	F	
3.11	T	F	T	F	T	
3.12	T	F	T	F	F	
3.13	T	F	F	T	T	0
3.14	T	F	F	T	F	0
3.15	T	F	F	F	T	0
3.16	T	F	F	F	F	0
3.17	F	T	T	T	T	
3.18	F	T	T	T	F	
3.19	F	T	T	F	T	

3.20	F	T	T	F	F	
3.21	F	T	F	T	T	.15
3.22	F	T	F	T	F	.10
3.23	F	T	F	F	T	.10
TC ID	kwh <= 500	500 < kwh <= 1500	kwh > 1500	SmartDevice	OptOut	Rebate
3.24	F	T	F	F	F	0
3.25	F	F	T	T	T	.20
3.26	F	F	T	T	F	.05
3.27	F	F	T	F	T	.05
3.28	F	F	T	F	F	.05
3.29	F	F	F	T	T	
3.30	F	F	F	T	F	
3.31	F	F	F	F	T	
3.32	F	F	F	F	F	

Code Coverage and Branch Coverage were evaluated by JaCoCo to be 100% using the initial test suite, so no additional tests were developed using Code Coverage or Branch Coverage techniques.