

Ex 1 Solution:

Current test case	Mutated test case	Coverage achieved by the mutated test case	New Coverage found?	Seed queue after the execution of the mutated test case	crash g()?
		NIL		<13>	No
13	O1(13) = 12	B2, B4, B5, B6	Yes	<13, 12>	No
	O2(13) = 6	B2, B4, B5, B6	No	<13, 12>	No
12	O1(12) = 11	B1, B3, B5	Yes	<13, 12, 11>	No
	O2(12) = 6	B2, B4, B5, B6	No	<13, 12, 11>	No
11	O1(11) = 10	B5	No	<13, 12, 11>	No
	O2(11) = 5	B5, B7, B8	Yes	<13, 12, 11, 5>	No
5	O1(5) = 4	B5, B7, B9	Yes	<13, 12, 11, 5, 4>	No
	O2(5) = 2	B2, B4, B5	No	<13, 12, 11, 5, 4>	No
4	O1(4) = 3	B5, B7, B8, B9	No	<13, 12, 11, 5, 4>	Yes

Ex 2 Solution:

- $\sin(x) = \sin(180-x)$
- $\sin(x) = -\sin(x+180)$
- $\sin(-x) = -\sin(x)$
- $\sin(x) < \sin(x+y)$ if $0 < x < 90-y$ and $y > 0$
- $|\sin(x)*\sin(x)| \leq |\sin(x)|$