

## Test Specification for sqrt

Unit Name	Square Root (sqrt)	
Summary (e.g. Interface spec)	Produces the square root of a non-negative input number	
Input Type(s)	Input Value(s)	Expected Result
int	-4	Illegal Argument Exception
int	-1 (boundary)	Illegal Argument Exception
int	0 (boundary)	0.0
int	1 (boundary)	1.0
int	4	2.0
int	MAX_INT (boundary)	46340.95 ( $\pm 0.01$ )
int	MIN_INT (boundary)	Illegal Argument Exception

## Test Specification for sqr

Unit Name	Square (sqr)	
Summary (e.g. Interface spec)	Produces the square of an input number	
Input Type(s)	Input Value(s)	Expected Result
int	-4	16
int	-1 (boundary)	1
int	0 (boundary)	0
int	1 (boundary)	1
int	4	16
int	MAX_INT (boundary)	Overflow Exception
int	MIN_INT (boundary)	Overflow Exception
int	46340 (boundary)	2147395600
int	46341(boundary)	Overflow Exception
int	-46340 (boundary)	2147395600
int	-46341 (boundary)	Overflow Exception

## Test Specification for factorial

Unit Name	Factorial	
Summary (e.g. Interface spec)	Produces the factorial of a number	
Input Type(s)	Input Value(s)	Expected Result
int	MIN_INT (boundary)	Illegal Argument Exception
int	-10	Illegal Argument Exception
int	-1 (boundary)	Illegal Argument Exception
int	0 (boundary)	1
int	1 (boundary)	1
int	4	24
int	12 (boundary)	479001600
int	13 (boundary)	Overflow Exception
int	25	Overflow Exception
int	MAX_INT (boundary)	Overflow Exception