Case id(BVA)	Description	Input data			Expected output	Actual output	status
		a	b	c			
1.	Enter min value for a b and c	1	1	1	Equilateral triangle	Equilateral triangle	Pass
2.	Enter min value for two items and min+1 for any one item	1	1	2	Isosceles triangle	Not a triangle	Fail
3.	Enter valid values for a b and c	5	5	5	Equilateral triangle	Equilateral triangle	Pass
4.	Enter valid values for two items and max values for one item	5	5	10	Isosceles triangle	Not a triangle	Fail
5.	Enter valid values for two items and max-1 values for one item	10	9	10	Isosceles triangle	Value of b out of range permitted	Fail
6.	Enter max values for a b and c	10	10	10	Equilateral triangle	Equilateral triangle	Pass
7.	Enter different values for a b and c	1	2	3	Scalene triangle	Not a triangle	Fail
8.	Enter different values for a b and c	2	3	1	Scalene triangle	Not a triangle	Fail

Case id(BVA)	Description	Input			Expected output		Actual output		status
		Locks	Stocks	Barrels	Sales	Commission	Sales	Commission	
1	Barrels is min	35	40	1	2800	420.00	2800	420.00	Pass
2	Barrels is min+	35	40	2	2825	425.00	2825	425.00	Pass
3	Barrels is norm	35	40	45	3900	640.00	3900	640.00	Pass
4	Barrels is max	35	40	90	5025	865.00	5025	865.00	Pass
5	Barrels is max-	35	40	89	5000	860.00	5000	860.00	Pass
6	Stocks is min	35	1	45	2730	406.00	2730	406.00	Pass
7	Stocks is min+	35	2	45	2760	412.00	2760	412.00	Pass
8	Stocks is norm	35	40	45	3900	640.00	3900	640.00	Pass
9	Stocks is max	35	80	45	5100	880.00	5100	880.00	Pass
10	Stocks is max-	35	79	45	5070	874.00	5070	874.00	Pass

Robust testing: Test Cases (min-, max+)

Case id	Description	Input data			Expected output		Actual output		Status
		Locks	Stocks	Barrels	Sales	commission	Sales	Commission	
1	Locks invalid	-2	40	45	Invalid Input		Invalid Input		Pass
2	Locks invalid	71	40	45	Invalid Input		Invalid Input		Pass
3	Stocks invalid	35	-2	45	Invalid Input		Invalid Input		Pass
4	Stocks invalid	35	81	45	Invalid Input		Invalid Input		Pass
5	Barrels invalid	35	40	-2	Invalid Input		Invalid Input		Pass
6	Barrels invalid	35	40	91	Invalid Input		Invalid Input		Pass

Special Value Testing: Test Cases(Validated test cases)

Case id	Description	Input			Expected output		Actual output		Status
		Locks	Stocks	Barrels	Sales	Commission	Sales	Commission	
1	Less than 1800	1	40	1	1270	275.00	1270	140.5000	Fail
2	Less than 1000	1	30	1	970	97.00	970	97.00	Pass
3	Greater than 1800	1	1	90	2325	325.00	2325	325.00	Pass

Worst Case Testing: Test Cases(min, max, nom, min-,max+)

Test Case id	Description	Input			Expected output		Actual output		status
		Locks	Stocks	Barrels	Sales	Commission	Sales	Commission	
1	Cartesian product of 5 element set.	1	2	1	130	13	130	13	Pass
2		1	2	2	155	15.5	155	15.5	Pass
3		1	2	45	1230	134.5	1230	134.5	Pass
4		1	2	90	2355	331	2355	331	Pass
5		1	2	89	2330	326	2330	326	Pass
6	Cartesian product of 5 element set.	1	1	1	100	10	100	10	Pass
7		1	1	2	125	12.5	125	12.5	Pass
8		1	1	45	1200	130	1200	130	Pass
9		1	1	90	2325	325	2325	325	Pass
10		1	1	89	2300	320	2300	320	Pass
11	Cartesian product of 5 element set.	1	40	1	1270	140.5	1270	140.5	Pass
12		1	40	20	1745	211.75	1745	211.75	Pass
13		1	40	45	2370	334	2370	334	Pass

14		1	40	90	3495	559	3495	559	Pass
15		1	40	89	3470	554	3470	554	Pass
16	Cartesian product of 5 element set.	1	80	1	2470	354	2470	354	Pass
17		1	80	2	2495	359	2495	359	Pass
18		1	80	45	3570	574	3570	574	Pass
19		1	80	90	4695	799	4695	799	Pass
20		1	80	89	4670	794	4670	794	Pass
21	Cartesian product of 5 element set.	1	79	1	2440	348	2440	348	Pass
22		1	79	2	2465	353	2465	353	Pass
23		1	79	45	3540	568	3540	568	Pass
24		1	79	90	4665	793	4665	793	Pass
25		1	79	89	4640	788	4640	788	Pass

Boundary value analysis test cases

Case id	Description	Input data			Expected output	Actual output	status
		Day	Month	year			
1	Year is min	15	6	1812	16-6-1812	16-6-1812	Pass
2	Year is min+	15	6	1813	16-6-1813	16-6-1813	Pass
3	Year is norm	15	6	1912	16-6-1912	16-6-1912	Pass
4	Year is max	15	6	2012	16-6-2012	16-6-2012	Pass
5	Year is max-	15	6	2011	16-6-2011	16-6-2011	Pass
6	Month is min	15	1	1912	16-1-1912	16-1-1912	Pass
7	Month is min+	15	2	1912	16-2-1912	16-2-1912	Pass
8	Month is norm	15	6	1912	16-6-1912	16-6-1912	Pass
9	Month is max	15	12	1912	16-12-1912	16-12-1912	Pass
10	Month is max-	15	11	1912	16-11-1912	16-11-1912	Pass
11	Day is min	1	6	1912	2-6-1912	2-6-1912	Pass
12	Day is min+	2	6	1912	3-6-1912	3-6-1912	Pass
13	Day is norm	15	6	1912	16-6-1912	16-6-1912	Pass
14	Day is max	31	6	1912	Invalid input	Invalid input	Pass
15	Day is max-	30	6	1912	1-7-1912	1-7-1912	Pass

Robust Testing Test Cases

Case id	Description	Input data			Expected output	Actual output	Status
		Day	Month	Year			
1	Day invalid	-1	6	1912	Invalid input	Invalid input	Pass
2	Day invalid	32	6	1912	Invalid input	Invalid input	Pass
3	Month invalid	15	-1	1912	Invalid input	Invalid input	Pass

Special value testing Test Cases

Case id	Description	Input data			Expected output	Actual output	Status
		Day	Month	Year			
1	For leap year	28	2	2000	29-2-2000	29-2-2000	Pass
2	For non-leap year	28	2	2001	1-3-2001	1-3-2001	Pass
3	For non-leap year	29	2	2001	Invalid input	Invalid input	Pass

Worst case testing: Test Cases

case id	Description	Input data			Expected output	Actual output	status
		Day	Month	Year			
1	Cartesian Product of 5 element set	1	1	1812	2-1-1812	2-1-1812	Pass
2		1	1	1813	2-1-1813	2-1-1813	Pass
3		1	1	1912	2-1-1912	2-1-1912	Pass
4		1	1	2012	2-1-2012	2-1-2012	Pass
5		1	1	2011	2-1-2011	2-1-2011	Pass
6	Cartesian Product of 5 element set	1	2	1812	2-2-1812	2-2-1812	Pass
7		1	2	1813	2-2-1913	2-2-1913	Pass
8		1	2	1912	2-2-1912	2-2-1912	Pass
9		1	2	2012	2-2-2012	2-2-2012	Pass
10		1	2	2011	2-2-2011	2-2-2011	Pass
11	Cartesian Product of 5 element set	1	6	1812	2-6-1812	2-6-1812	Pass
12		1	6	1813	2-6-1813	2-6-1813	Pass

13		1	6	1912	2-6-1912	2-6-1912	Pass
14		1	6	2012	2-6-2012	2-6-2012	Pass
15		1	6	2011	2-6-2011	2-6-2011	Pass

Weak equivalence class testing

Case id	Description	Input data			Expected output	Actual output	status
		a	b	c			
1	Enter min value for a b and c	5	5	5	Equilateral triangle	Equilateral triangle	Pass
2	Enter min value for a b and c	2	2	3	Isosceles triangle	Isosceles triangle	Pass
3	Enter min value for a b and c	3	4	5	Scalene triangle	Isosceles triangle	Pass
4	Enter min value for a b and c	4	1	2	Cannot form a triangle	Cannot form a triangle	Pass

Weak robust equivalence class testing

Case id	Description	Input data			Expected output	Actual output	status
		A	b	C			
1	Enter one invalid input and two valid inputs	-1	5	5	Value of a is not in range of permitted values	Value of a is not in range of permitted values	Pass
2	Enter one invalid input and two valid inputs	5	-1	5	Value of b is not in range of permitted values	Value of b is not in range of permitted values	Pass
3	Enter one invalid input and two valid inputs	5	5	-1	Value of c is not in range of permitted values	Value of c is not in range of permitted values	Pass

4	Enter one in valid input and two valid inputs	11	5	5	Value of a is not in range of permitted values	Value of a is not in range of permitted values	Pass
5	Enter one in valid input and two valid inputs	5	11	5	Value of b is not in range of permitted values	Value of b is not in range of permitted values	Pass

Strong robust equivalence class testing

Case id	**Description**	**Input data**			**Expected output**	**Actual output**	**status**
		a	**b**	**c**			
1	Enter one invalid input and two valid inputs	-1	5	5	Value of a is not in range of permitted values	Value of a is not in range of permitted values	Pass
2	Enter one invalid input and two valid inputs	5	-1	5	Value of b is not in range of permitted values	Value of b is not in range of permitted values	Pass
3	Enter one invalid input and two valid inputs	5	5	-1	Value of c is not in range of permitted values	Value of c is not in range of permitted values	Pass
4	Enter two in valid input and one valid inputs	-1	-1	5	Value of a and b I are not in range of permitted values	Value of a and b I are not in range of permitted values	Pass
5	Enter two in valid input and one valid inputs	-1	5	-1	Value of b and a are not in range of permitted values	Value of b and a are not in range of permitted values	Pass

6	Enter two in valid input and one valid inputs	5	-1	-1	Value of c and b are not in range of permitted values	Value of c and b are not in range of permitted values	Pass
7	Enter all three invalid inputs	-1	-1	-1	Input values are not in range of permitted values	Input values are not in range of permitted values	Pass

Weak & Strong Normal Equivalence Class

Case id	Description	Input data			Expected output		Actual output		status
				Locks stocks barrels Sales		commission			
1	Valid input	35	40	45	3900	640.00	3900	640.00	Pass
2	Locks =-1	-1	40	45	Program terminates		Program terminates		pass

Weak Robust Equivalence Class Test Cases

Case	Description	Input data	Expected output	Actual output	status

id									status
		Locks	stocks	barrels	Sales	commission	Sales	commission	
	WR1 Valid input	35	40	45	3900	640.00	3900	640.00	Pass
	WR2 Locks is invalid	-2	40	45	Program terminates		Invalid input		Fail
	WR3 Locks is invalid	71	40	45	Invalid input		Invalid input		Pass
WR4	Stocks is invalid	35	-2	45	Invalid input		Invalid input		Pass

WR5	Stocks is invalid	35	81	45	Invalid input	Invalid input	Pass
	WR6 Barrels is invalid	35	40	-2	Invalid input	Invalid input	Pass
	WR7 Barrels is invalid	35	40	91	Invalid input	Invalid input	Pass

Strong Robust Equivalence Classes Test Cases

Case Id	**Description**	**Input data**			**Expected output**		**Actual output**		**status**
		Locks	**stocks**	**Barrels**	**Sales**	**commission**	**Sales**	**commission**	
SR1	Invalid input	-2	40	45	Invalid input		Invalid input		Pass
SR2	Invalid input	35	-2	45	Invalid input		Invalid input		Pass
SR3	Invalid input	35	40	-2	Invalid input		Invalid input		Pass
SR4	Invalid input	-2	-2	45	Invalid input		Invalid input		Pass
SR5	Invalid input	-2	40	-2	Invalid input		Invalid input		Pass
SR6	Invalid input	35	-2	-2	Invalid input		Invalid input		Pass
SR7	Invalid input	-2	-2	-2	Invalid input		Invalid input		Pass

Weak Normal Equivalence Classes Test Cases

Case Id	Description	Input			Expected output		Actual output		status
		Locks	Stocks	Barrels	Sales	**Locks stc commission**	sales	commission	
WN1	Sales<=1000	5	5	5	500	50.00	500	50.00	Pass
WN2	1000<=sales<=1800	15	15	15	1500	310.0	1500	175.000	Fail
WN3	Sales>1800	25	25	25	2500	360.0	2500	360.00	Pass

Strong Normal Equivalence Classes Test Cases

Case id	Description	Input			Expected output		Actual output		status
		Locks	**Stocks**	**barrels**	**Sales**	**commission**	**Sales**	**commission**	
SN1	Sales<=1000	5	5	5	500	50.00	500	50.00	Pass
SN2	1000<=sales<=1800	15	15	15	1500	310.00	1500	175.000	Fail
SN3	Sales>1800	25	25	25	2500	360.00	2500	360.00	Pass

Weak Normal and Strong Normal Equivalence Classes Test Cases

Case id	Description	Input			Expected output	Actual output	status
		Day	Month	Year			
1	Enter the M1, D1 and Y1 valid cases	15	6	1912	16-6-1912	16-6-1912	Pass

Weak Robust Equivalence Classes Test Cases

Case id	Description	Input			Expected output	Actual output	status
		day	month	year			
1	Valid input	15	6	1912	Invalid input	16-6-1912	Fail
2	Day is invalid	-1	6	1912	Invalid input	Invalid input	Pass
3	Day is invalid	32	6	1912	Invalid input	Invalid input	Pass
4	Month is invalid	15	-1	1912	Invalid input	Invalid input	Pass
5	Month is invalid	15	13	1912	Invalid input	Invalid input	Pass
6	Year is invalid	15	6	1811	Invalid input	Invalid input	Pass
7	Year is invalid	15	6	2013	Invalid input	Invalid input	Pass

Strong Robust Equivalence Classes Test Cases

TC ID	TC Description	Input			Expected output	Actual output	status
		Day	Month	Year			
SR1	Invalid input	-1	6	1912	Invalid input	Invalid input	Pass
SR2	Invalid input	15	-1	1912	Invalid input	Invalid input	Pass
SR3	Invalid input	15	6	-1	Invalid input	Invalid input	Pass
SR4	Invalid input	-1	-1	1912	Invalid input	Invalid input	Pass
SR5	Invalid input	-1	6	1912	Invalid input	Invalid input	Pass
SR6	Invalid input	15	-1	-1	Invalid input	Invalid input	Pass
SR7	Invalid input	-1	-1	-1	Invalid input	Invalid input	Pass

Weak Normal Equivalence Classes Test Cases

Test case id	Description	Input			Expected output	Actual output	status
		Day	Month	Year			
WN1	Valid input	14	6	2000	14-6-2000	14-6-2000	Pass
WN2	Valid input	29	7	1996	29-7-1996	30-7-1996	Fail
WN3	Valid input	30	2	2000	30-2-2000	Invalid input	Fail
WN4	Valid input	31	6	2000	31-6-2000	Invalid input	Fail

Weak Robust Equivalence Classes Test Cases

Test case id	Description	Input data			Expected output	Actual output	status
		Day	Month	Year			

WR1	Valid input	15	6	1912	Invalid input	16-6-1912	Fail
WR2	Day is invalid	-1	6	1912	Invalid input	Invalid input	Pass
WR3	Day is invalid	32	6	1912	Invalid input	Invalid input	Pass
WR4	Month is invalid	15	-1	1912	Invalid input	Invalid input	Pass
WR5	Month is invalid	15	13	1912	Invalid input	Invalid input	Pass
WR6	Year is invalid	15	6	1811	Invalid input	Invalid input	Pass
WR7	Year is invalid	15	6	2013	Invalid input	Invalid input	Pass

Strong Robust Equivalence Classes Test Cases

Test case id	**Description**	**Input data**			**Expected output**	**Actual output**	**status**
		Day	**Month**	**Year**			
SR1	Invalid input	-1	6	1912	Invalid input	Invalid input	Pass
SR2	Invalid input	15	-1	1912	Invalid input	Invalid input	Pass
SR3	Invalid input	15	6	-1	Invalid input	Invalid input	Pass
SR4	Invalid input	-1	-1	1912	Invalid input	Invalid input	Pass
SR5	Invalid input	-1	6	1912	Invalid input	Invalid input	Pass
SR6	Invalid input	15	-1	-1	Invalid input	Invalid input	Pass

SR7	Invalid input	-1	-1	-1	Invalid input	Invalid input	Pass

Rules	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11
Conditions:											
C1: a<(b+c)?	F	T	T	T	T	T	T	T	T	T	T
C2: b<(a+c)?	-	F	T	T	T	T	T	T	T	T	T
C3: c<(b+a)?	-	-	F	T	T	T	T	T	T	T	T
C4: a=b?	-	-	-	F	T	T	T	F	F	F	T
C5: b=c?	-	-	-	T	F	T	F	T	F	F	T
C6: c=a?	-	-	-	T	T	F	F	F	T	F	T
Actions:											
A1: not a triangle	X	X	X								
A2: equilateral											X
A3: isosceles							X	X	X		
A4: scalene										X	
A5: impossible				X	X	X					

Triangle Problem -Decision Table Test cases for input data

Case id	Description	Input data			Expected output	Actual output	Status
		A	b	c			
1	Enter the value of a,b and c such that a is not less than sum of two sides	20	5	5	Cannot form a triangle	Cannot form a triangle	Pass
2	Enter the value of a,b and c such that b is not less than sum of two sides and a is less than sum of two sides	3	15	11	Cannot form a triangle	Cannot form a triangle	Pass
3	Enter the value of a , b and c such that c is not less than the sum of two sides and a and b is less than sum of other two sides.	4	5	20	Cannot form a triangle	Cannot form a triangle	Pass

RULES			R1 R2	R3	R4	R5	R6	R7	R8	R9
Conditions	C1: Locks = -1	T	F	F	F	F	F	F	F	F
	C2 : 1 ≤ Locks ≤ 70	-	T	T	F	T	F	F	F	T
	C3 : 1 ≤ Stocks ≤ 80	-	T	F	T	F	T	F	F	T
	C4 : 1 ≤ Barrels ≤ 90	-	F	T	T	F	F	T	F	T
Actions	a1 : Terminate the input loop	X								
	a2 : Invalid locks input				X		X	X	X	
	a3 : Invalid stocks input			X		X		X	X	
	a4 : Invalid barrels input		X			X	X		X	
	a5 : Calculate total locks, stocks and barrels		X	X	X	X	X	X		X
	a5 : Calculate Sales	X								
	a6: proceed to commission decision table	X								

Decision table for commission problem (Precondition: lock = -1)

Rules		R1	R2	R3	R4
Conditions	C1:sales=0	T	F	F	F
	C2: sales>0 and sales< =1000	-	T	F	F
	C3: sales>1001 and sales< =1800	-	-	T	F
	C4: sales >= 1801	-	-	-	T
Actions	A1:Terminate the program	X			
	A2:comm =10% * sales		X		
	A3:comm= 10%*1000+(sales-1000)*15%			X	
	A4:comm = 10%*1000+15%*800+(sales-1800)*20%				X

.

Commission problem decision table for input data test cases

Case Id	Description	Input data			Expected output	Actual output	status
		Locks	stocks	barrels			
1	Enter the value for locks =-1	-1	0	0	Terminate the input loop check for sales if(sales=0) exit from program else calculate commission	Program terminates	Fail
2	Enter valid inputs for locks and stocks and invalid input for barrels	20	30	-5	Total of locks stocks is updated if it is with in a precondition limit and should be display value of barrels is not in range1..90	Invalid input	Fail
3	Enter valid inputs for locks and barrels and invalid input for stocks	15	-2	45	Total of locks barrels is updated if it is with in a precondition limit and should be display value of stocks is not in range1..80	Invalid input	Fail
4	Enter valid inputs for barrels and stocks and invalid input for locks	-4	15	16	Total of barrels stocks is updated if it is with in a precondition limit and should be display value of locks is not in range1..70	Invalid input	Fail

5	Enter valid inputs for locks and invalid input for barrels and stocks	15	80	100	Total of locks is updated if it is with in a precondition limit and (i) should be display value of barrels is not in range1..90 (ii) should be display value of stocks is not in range1..80	Invalid input	Fail
6	Enter valid inputs for stocks and invalid input for barrels and locks	88	20	99	Total of stocks is updated if it is with in a precondition limit and (i)should be display value of barrels is not in range1...90(ii)shoul d be display value of locks is not in range 1...70	Invalid input	Fail
7	Enter valid inputs for barrels and invalid input for locks and stocks	100	200	25	Total of barrels is updated if it is with in a precondition limit and (i) should be display value of stocks is not in range1..80(ii) should be display value of locks is not in range1..70	Invalid input	Fail
8	Enter invalid input for barrels and stocks and locks	-5	400	-9	(i) should be display value of stocks is not in range1..80(ii) should be display value of locks is not in range1..70(iii) should be display value of barrels is not in range1..90	Invalid input	Fail

9	Enter valid Inputs for locks and barrels and stocks	15	20	25	Total of locks, stocks and barrels is updated if it is with in a precondition limit and calculate sales and commission	Sales=1900 Commission=240.00	Pass

Commission problem - decision table for pre condition locks=-1

Case id	**Description**	**Input**	**Expected output**		**Actual output**	**Status**
		Sales	**commission**	**values**		
1	Check values for sales	0	Terminates the program and commission =0	0	0	Pass
2	Sales>0 and sales<=1000	900	Comm =10% * sales	900	Program terminates	Fail
3	Sales>1000 and sales<=1800	1400	Comm = 10%*1000+ (sales-1000)*15%	1600	Program terminates	Fail
4	Sales >= 1800	2500	Comm=10%*1000+15%*800+(sales 1800)*20%	3400	Program terminates	Fail

Paths	Inputs		Expected output	Remarks
	X[ ]	Key		
P1: 1-2-3-8-9	{10,20,30,40,50}	30	Success	Key ∈X[ ] & Key==X[mid]
P2: 1-2-3-4-5-7-2	{10,20,30,40,50}	20	Repeat and success	Key < X[mid] search 1st half
P3: 1-2-3-4-6-7-2	{10,20,30,40,50}	40	Repeat and success	Key >X[mid] search 2nd half
P4: 1-2-8-9	{10,20,30,40,50}	60 or 50	Repeat and Failure	Key∉X[mid]
P5: 1-2-8-9	Empty	Any key	Failure	Empty List

Test Cases – Absolute Grading

Paths	Input per	Expected output	Remarks
P1:1-2-4-6-8-10-11-17-19-20	< 60	E grade , satisfactory	Pass
P2:1-2-4-6-8-9-11-16-19-20	60-69	D grade , Above average	Pass
P3:1-2-4-6-7-11-15-19-20	70-79	C grade ,good	Pass
P4:1-2-4-5-11-14-19-20	80-89	B grade , very good	Pass
P5:1-2-3-11-13-19-20	>=90	A grade , excellent	Pass
P6:1-2-4-6-8-10-11-13-19-20	< 60	Excellent	Pass
P7: 1-2-4-6-8-10-11-14-19-20	< 60	Very good	Pass
P8: 1-2-4-6-8-10-11-15-19-20	< 60	Good	Pass
P9: 1-2-4-6-8-10-11-16-19-20	< 60	Above average	Pass