

Case #	Input	Expected Output	Actual Output
1	a	Password generated	Password is generated
2	B, 4,12	33.33%	33.33%
3	B,5,0	Error Try again	Error try again displayed
4	c	Total days remaining	Remaining days displayed
5	D,12,10,30	6.01	6.012
6	D,10,12, 180	Error Try again	Error try again displayed
7	D,0,0,90	Error Try again	Error try again displayed
8	E, 10, 3	282.74	282.74
9	E, 0, 2	Error Try again	Error try again displayed
10	F	Enter to exit	Enter to exit displayed

TC1:

```

C:\Windows\system32\cmd.exe - "C:\Users\Andrew\anaconda3\python.exe" "C:\Users\A
a. Generate Secure Password
b. Calculate and Format a Percentage
c. How many days from today until July 4, 2025?
d. Use the Law of Cosines to calculate the leg of a triangle.
e. Calculate the volume of a Right Circular Cylinder
f. Exit program

Input a corresponding letter to access menu option: a
PASSWORD GENERATOR
Your new password is: za353TdAcG

Press ENTER to return to Menu.

```

TC2:

```

a. Generate Secure Password
b. Calculate and Format a Percentage
c. How many days from today until July 4, 2025?
d. Use the Law of Cosines to calculate the leg of a triangle.
e. Calculate the volume of a Right Circular Cylinder
f. Exit program

Input a corresponding letter to access menu option: b
Enter value for the numerator: 4
Enter value for the denominator: 12
PERCENTAGE MATH
4 / 12 is approximately equal to 33.33 %

Press ENTER to return to Menu.

```

TC3:

```

C:\Windows\system32\cmd.exe - "C:\Users\Andrew\anaconda3\python.exe" "C:\Users\Andr
a. Generate Secure Password
b. Calculate and Format a Percentage
c. How many days from today until July 4, 2025?
d. Use the Law of Cosines to calculate the leg of a triangle.
e. Calculate the volume of a Right Circular Cylinder
f. Exit program

Input a corresponding letter to access menu option: b
Enter value for the numerator: 5
Enter value for the denominator: 0
PERCENTAGE MATH
ERROR! Cannot divide by zero. Try again
Enter a value for the denominator:

```

TC4:

```

C:\Windows\system32\cmd.exe - "C:\Users\Andrew\anaconda3\python.exe" "C:\Users\Ar
a. Generate Secure Password
b. Calculate and Format a Percentage
c. How many days from today until July 4, 2025?
d. Use the Law of Cosines to calculate the leg of a triangle.
e. Calculate the volume of a Right Circular Cylinder
f. Exit program

Input a corresponding letter to access menu option: c
DAY CALCULATOR

There are 1048 days, 0:00:00 remaining till 2025-07-04

Press ENTER to continue

```

TC5:

```

C:\Windows\system32\cmd.exe - "C:\Users\Andrew\anaconda3\python.exe" "C:\Users\And
a. Generate Secure Password
b. Calculate and Format a Percentage
c. How many days from today until July 4, 2025?
d. Use the Law of Cosines to calculate the leg of a triangle.
e. Calculate the volume of a Right Circular Cylinder
f. Exit program

Input a corresponding letter to access menu option: d
Enter the length of side a: 12
Enter the length of side b: 10
Enter the angle (in decimal form) inbetween side a and b: 30
TRIANGLE MATH
Leg C is equal to: 6.012811579596913 units

Press ENTER to return to Menu.

```

TC6:

```

a. Generate Secure Password
b. Calculate and Format a Percentage
c. How many days from today until July 4, 2025?
d. Use the Law of Cosines to calculate the leg of a triangle.
e. Calculate the volume of a Right Circular Cylinder
f. Exit program

Input a corresponding letter to access menu option: d
Enter the length of side a: 10
Enter the length of side b: 12
Enter the angle (in decimal form) inbetween side a and b: 180
TRIANGLE MATH
ERROR: Angle must be between 1 and 179
Enter a value for the angle in degrees:

```

TC7:

```

a. Generate Secure Password
b. Calculate and Format a Percentage
c. How many days from today until July 4, 2025?
d. Use the Law of Cosines to calculate the leg of a triangle.
e. Calculate the volume of a Right Circular Cylinder
f. Exit program

Input a corresponding letter to access menu option: d
Enter the length of side a: 0
Enter the length of side b: 0
Enter the angle (in decimal form) inbetween side a and b: 90
TRIANGLE MATH
ERROR: Both sides must be greater than 0!
Enter a valid value for leg_a:

```

TC8:

```

a. Generate Secure Password
b. Calculate and Format a Percentage
c. How many days from today until July 4, 2025?
d. Use the Law of Cosines to calculate the leg of a triangle.
e. Calculate the volume of a Right Circular Cylinder
f. Exit program

Input a corresponding letter to access menu option: e
Enter the height of a cylinder: 10
Enter the radius of a cylinder: 3
VOLUME CALCULATOR
The volume of the cylinder is: 282.7433388230814 units^3

Press ENTER to return to Menu.

```

TC9:

```

a. Generate Secure Password
b. Calculate and Format a Percentage
c. How many days from today until July 4, 2025?
d. Use the Law of Cosines to calculate the leg of a triangle.
e. Calculate the volume of a Right Circular Cylinder
f. Exit program

Input a corresponding letter to access menu option: E
Enter the height of a cylinder: 0
Enter the radius of a cylinder: 2
VOLUME CALCULATOR
ERROR: Height nor Radius can be zero or negative! Try Again
Enter value for height:

```

TC10:

```

C:\Windows\system32\cmd.exe - "C:\Users\Andrew\anaconda3\python.exe" "C:\Users\And
a. Generate Secure Password
b. Calculate and Format a Percentage
c. How many days from today until July 4, 2025?
d. Use the Law of Cosines to calculate the leg of a triangle.
e. Calculate the volume of a Right Circular Cylinder
f. Exit program

Input a corresponding letter to access menu option: f
Press ENTER to exit the program.

```