

## **[360-MATHS]**

### **INTRODUCTION**

- The software is entitled as [360-MATHS].
- With the help of our software users can calculate the irrespective mathematical related problems.
- Topics covered in this project are as follow--
  1. Calculations of mensuration of two –dimension as well as three - dimension figures.
  2. CoordinateGeometry.
  3. Trigonometry.
  4. DatarelatedwithProfitand Loss.

### **OBJECTIVESOFTHEPROJECT**

- The objective of this project is to provide basically a platform comprises of different integrated program,that is beneficial and helpful for different users,in a way that they need not to wander at different sites for their respective work.

## **SCOPE OF PROJECT**

I have planned many things for present needs as well as for future regarding our project. Although, our users will be able to run this software in only text mode and in future voice mode also.

### **1 FOR STUDENTS-**

Attaching test series basically related to above project in which users will have to attempt the irrespective questions. After the test he/she would be able to get his/her performance. Although, we will be updating our software, within every month with new tools and mathematics concepts along with different variety questions, test, practice question and many more for different users

### **2. FOR PUBLISHERS AND AUTHORS-**

They would get more advanced attachment along with our updated software.

They would be able to use in almost framing most of questions for their books, practice sets, and respective modules.

Although they would be able to get QR code of this software which will be beneficial for them in their ratings and uniqueness.

### **3. FOR BUSINESSMAN. DEALERS AND VENDORS—**

They will be able to get a backup receipt for their customers.

This software would help them in a very vast way.

## **Bibliography**

- GUIDER AND GOOGLE.

# SOURCECODEFORTHEPROJECT-[360-MATHS]

```
f=open("srclocation.txt","a")
f.write("allrecord arestoredinthis file")

whileTrue:
    print("PLZ,OBSERVETHERESPECTIVES.NOFORTOPICS-".center(140))
    print("A. S.NO=1 IS FOR-MENSTURATION".center(40))
    print("B. S.NO=2 IS FOR-PROFIT AND LOSS ".center(43))
    print("C.S.NO=3ISFORCOORDINATEGEOMETRY".center(45))
    print("D. S.NO=4 IS FOR TRIGNOMETRIY".center(40))
    print("E. S.NO=5 IS FOR STATISTICS".center(38))

    select=int(input("enteryourserialno.accordingtoyourchoice=")) if

select==1:
    frommathimport*
    dim=input("enter[2-D]OR[3-D]FORTYPEOFFIGURE.=")

    if(dim=="2-D")or(dim=="2-d"):

        print("A. S.NO=1.1 IS FOR-square".center(39))
        print("B. S.NO=1.2 IS FOR-rectangle".center(42))
        print("C. S.NO=1.3 IS FOR-triangle".center(42))
        print("D. S.NO=1.4 IS FOR-rohmbus".center(40))
        print("E. S.NO=1.5 IS FOR-parelelogram".center(46))
        print("F. S.NO=1.6 IS FOR-circle".center(39))
        print("G.S.NO=1.7ISFOR-quadrailateral".center(47))

        select2=float(input("enteryours.no.accordingtoyourchoice=")) if

        select2==1.1:
            side=eval(input("enterlengthofsideof square="))
            r=round((side*side),2)
            p=round((4*side),2)
            s=round((1.41*side),2)
            print(f"THEAREAOF SQUAREIS{r}SQUAREUNITS")
            print(f"THE PERIMETER OF SQUARE IS {p} UNITS")
            print(f"THE DIAGONAL OF SQUARE IS {s} UNITS")
            f.write("THE AREA OF SQUARE IS"+str(r))
            f.write("THE DIAGONAL OF SQUARE IS"+str(p))

        elifselect2==1.2:
            len,br=input("enterlenandbrofrectanglesepycomma=").split(",")
            m=round((eval(len)*eval(br)),2)
            n=round((2*(eval(len)+eval(br))),2)
            d=round((((eval(len)**2)+(eval(br)**2))**0.5),2)
            print(f"THEAREAOFRECTANGLEIS{m}SQUAREUNITS") print(f"THE
            PERIMETER OF RECTANGLEIS {n} UNITS") print(f"THE
            DIAGONAL OF RECTANGLE IS {d} UNITS")
            f.write("AREA OF RECTANGLE "+str(m))
            f.write("PERIMETEROFRECTANGLE"+str(n))

        elifselect2==1.3:
            s1,s2,s3=input("enterthethreesidesoftrianglesepycomma=").split(",")
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s=((eval(s1)+eval(s2)+eval(s3))/2)
a=round((s*(s-eval(s1))*(s-eval(s2))*(s-eval(s3))),2)
n=round((eval(s1)+eval(s2)+eval(s3)),2)
print(f"THEAREAOFTRIANGLEIS{a}SQUAREUNITS")
print(f"THE PERIMETER OF TRIANGLE IS {n} UNITS")
f.write("THE AREA OF TRIANGLE"+str(a))
f.write("THE PERIMETER OF TRIANGLE "+str(n))

elifselect2==1.4:
    d1,d2=input("entertwodagonalssparatedbycomma=").split(",")
    r=round((eval(d1)*eval(d2)*0.5),2)
    m=round((2*((eval(d1)**2+eval(d2)**2)**0.5)),2)
    p=round((((eval(d1)**2+eval(d2)**2)**0.5)/2),2)
    print(f"THE AREA OF ROHMBUS {r} SQUARE UNITS")
    print(f"THEPERIMETEROFROHMBUSIS {m}UNITS")
    print(f"THE SIDE OF ROHMBUS IS {p} UNITS")
    f.write("THE AREA OF ROHMBUS"+str(r))
    f.write("THE SIDE OF ROHMBUS"+str(p))

elifselect2==1.5:
    base,height=input("enterbaseandheightof//gmsepycomma=").split(",")
    m=round((eval(base)*eval(height)),2)n=round((2*(eval(base)+eval(height))),2)
    print(f"THEAREAOfparelelogramIS {m}SQUAREUNITS")
    print(f"THE PERIMETER OF paralelogram IS {n} UNITS")
    f.write("THE AREA OF paralelogram IS"+str(m))
    f.write("THE PERIMETER OF paralelogram"+str(n))

elifselect2==1.6:
    r,fi=input("entertheradiusand subtendedanglesep.bycomma=").split(",")
    t=round(float(eval(fi)),2)
    a=round(((t*pi*(eval(r)**2))/(2*pi)),2)
    m=round((2*pi*eval(r)),2)
    q=round((t*2*pi*eval(r))/(2*pi),2)
    print(f"THE AREA OF CIRCLE IS {a} SQUARE UNITS")
    print(f"THECIRCUMFERENCEOFCIRCLEIS{m}UNITS")
    print(f"THELENGTHOFSUBTENDE-ARCOFCIRCLEIS{q}UNITS") f.write("CIRCUMFERENCE OF CIRCLE"+str(m))
    f.write("THELENGTHOFSUBTENDE-ARC"+str(q))

elifselect2==1.7:
    l1,l2,l3,l4=input("enterallsidesofquad.seperatedbycomma=").split(",")
    s=((eval(l1)+eval(l2)+eval(l3)+eval(l4))/2)
    ar=((s-eval(l4))*(s-eval(l1))*(s-eval(l2))*(s-eval(l3)))
    print(f"THE AREA OF QUADRILATERAL IS {round(ar**0.5,2)}Sq.units")
    print(f"THEPERIMETEROFQUADRILATERALIS{round((2*s),2)}UNITS")
    f.write("AREA OF QUADRILATERAL IS"+str(ar**0.5,2))
    f.write("PERIMETEROFQUADRILATERAL "+str(round((2*s),2)))

else:
    print("WE HAVERIGHTNOWONLYTHISDATAIN2-DIMENSION..")

elifdim=="3-D"ordim=="3-d":
    print("A. S.NO=1.1 IS FOR-cube".center(40))
    print("B. S.NO=1.2 IS FOR-cuboid".center(42))
    print("C. S.NO=1.3 IS FOR-cylinder".center(43))
    print("D. S.NO=1.4 IS FOR-sphere".center(41))
    print("E.S.NO=1.5ISFOR-hemisphere".center(45))
    print("F. S.NO=1.6 IS FOR-cone".center(39))
    print("G. S.NO=1.7 IS FOR-frustum".center(41))

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choose=float(input("enteryourserialno.accordingtoyourchoice="))

ifchoose==1.1:
    side=eval(input("enterlengthofsideofcube="))
    l=round((4*side*side),2)
    t=round((6*side**2),2)
    d=round((1.732*side),2)
    print(f"THELATERALAREAOF CUBEIS {l} SQUAREUNITS")
    print(f"THE TOTAL AREA OF CUBE IS {t} SQUARE UNITS")
    print(f"THE VOLUME OF CUBE IS {side**3} UNITS")
    print(f"THE DIAGONAL OF CUBE IS {d} UNITS")
    f.write(str(t))

elifchoose==1.2:
    l,b,h=input("enter l,b,h of side of cuboid sep by comma =").split(",")
    a=round((2*eval(h)*(eval(l)+eval(b))),2)
    b=round(((2*eval(l)*eval(b)))+(2*eval(b)*eval(h))+(2*eval(h)*eval(l))),2)
    print(f"THE LATERAL AREA OF CUBOID IS {a} SQUARE UNITS")
    print(f"THETOTALAREAOF CUBOIDIS {b} SQUAREUNITS")
    f.write("THE LATERAL AREA OF CUBOID IS"+str(a))
    f.write("THE TOTAL AREA OFCUBOID "+str(b))

elifchoose==1.3:
    r,h=input("enterradandheofcylindersepycomma=").split(",")
    m=round((2*pi*eval(r)*eval(h)),2)
    n=round((2*pi*eval(r)*(eval(r)+eval(h))),2)
    q=round((pi*eval(h)*(eval(r)**2)),2)
    d=round(((eval(h)**2+4*eval(r)**2)**0.5),2)
    print(f"THECURVEDAREAOF CYLINDERIS {m} SQUAREUNITS")
    print(f"THE TOTAL AREA OF CYLINDER IS {n} SQUARE UNITS")
    print(f"THEVOLUMEOF CYLINDERIS {q} UNITS")print(f"THE
    DIAGONAL OF CYLINDER IS {d} UNITS") f.write("THE TOTAL
    AREA OF CYLINDER IS"+str(m)) f.write("THE CURVED AREA
    OFCYLINDER "+str(n))

elifchoose==1.4:
    r=eval(input("enterradiusofsphere="))
    m=round((4*pi*r**2),2)
    n=round(((4*pi*r**3)/3),2)
    print(f"THETOTALAREAOF SPHEREIS {m} SQUAREUNITS")
    print(f"THE VOLUME OF SPHERE IS {n} UNITS")
    f.write("THE CURVED AREA OF SPHERE IS"+str(m))
    f.write("THE TOTAL AREA OFSPHERE"+str(n))

elifchoose==1.5:
    r=eval(input("enterradiusofhemisphere="))
    p=round((2*pi*(r**2)),2)
    m=round((3*pi*(r**2)),2)
    n=round(((2*pi*(r**3))/3),2)
    print(f"THELATERALAREAOFHEMISPHEREIS {p} SQUAREUNITS")
    print(f"THE TOTAL AREA OF HEMISPHERE IS {m} SQUARE UNITS")
    print(f"THE VOLUME OF HEMISPHERE IS {n} UNITS")
    f.write("THECURVEDAREAOFHEMISPHEREIS"+str(p))
    f.write("THE TOTAL AREA OFHEMISPHERE"+str(m))

elifchoose==1.6:
    r,h=input("enterradiusandheightofconesepbycomma=").split(",")
    l=(eval(r)**2+eval(h)**2)**0.5
    m=round((pi*eval(r)*l),2)

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n=round((pi*eval(r)*(eval(r)+1)),2)
p=round(((pi*eval(h)*(eval(r)**2))/3),2)
print(f"THECURVEDAREAOFCONESIS{m}SQUAREUNITS")
print(f"THE TOTAL AREA OF CONE IS {n} SQUARE UNITS")
print(f"THE VOLUME OF CONE IS {p} UNITS")
f.write("THE CURVED AREA OF CONE IS"+str(m))
f.write("THE TOTAL AREA OF CONE"+str(n))

elifchoose==1.7:
    r,R,h=input("entersm&lgradiandheiseipby comma=").split(",")
    l=(eval(h)**2+(eval(R)-eval(r))**2)**0.5
    m=round((pi*l*(eval(r)+eval(R))),2)
    n=round(((pi*l*(eval(r)+eval(R)))+pi*(eval(r)**2+eval(R)**2)),2)
    p=round(((pi*eval(h)*(eval(r)**2+eval(R)**2+eval(r)*eval(R)))/3),2)
    print(f"THE CURVED AREA OF FRUSTUM IS {m} SQUARE UNITS")
    print(f"THE TOTAL AREA OF FRUSTUM IS {n} SQUARE UNITS")
    print(f"THE VOLUME OF FRUSTUM IS {p} UNITS")
    f.write("THECURVEDAREA OFFRUSTUMIS"+str(m))
    f.write("THE TOTAL AREA OF FRUSTUM"+str(n))

else:
    print("FOR NOW WE HAVE THIS MUCH DATA.")

elifselect==2:
    print("A.S.NO=2.1 IS FOR-
    FINDING PROFIT".center(45))
    print("B.S.NO=2.2 IS FOR-
    FINDING LOSS".center(45))
    print("C. S.NO=2.3 IS FOR-FINDING
    PROFIT_".center(47))
    print("D.S.NO=2.4 IS FOR-
    FINDING LOSS_".center(45))
    print("E.S.NO=2.5 IS FOR-FINDING
    SP GIVEN P%& cp".center(55))
    print("F.S.NO=2.6 IS FOR-FINDING
    SP GIVEN L%& cp".center(55))
    print("G.S.NO=2.7 IS FOR-FINDING
    CP GIVEN P%& sp".center(55))
    print("H.S.NO=2.8 IS FOR-FINDING
    CP GIVEN L%& sp".center(55))
    print("I. S.NO=2.9 IS FOR-FINDING
    DISCOUNT".center(48))
    print("J. S.NO=2.91 IS FOR-FINDING
    DISCOUNT_".center(49))

st=float(input("enter your respected serial no. of topic="))
if
st==2.1:
    def profit_finder():
        a=eval(input("ENTER THE SP="))
        b=eval(input("ENTER THE CP="))
        profit=round((a-b),2)
        print(f"THE PROFIT IS {profit}")
        f.write("THE PROFIT IS"+str(profit))
    profit_finder()

elifst==2.2:
    def loss_finder():
        a=eval(input("ENTER THE SP="))
        b=eval(input("ENTER THE CP="))
        loss=round((b-a),2)
        print(f"THE LOSS IS {loss}")
        f.write("THE LOSS IS"+str(loss))
    loss_finder()

elifst==2.3:
    def profit_():

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        a=eval(input("ENTER THE SP="))
        b=eval(input("ENTER THE CP="))
        p_perc=round((((a-b)*100)/b),2)
        print(f"THE PROFIT % IS {p_perc}%")
        f.write("THEPROFIT%IS"+str(p_perc))
    profit_()

elif st==2.4:
    def loss_():
        a=eval(input("ENTER THE SP="))
        b=eval(input("ENTER THE CP="))
        l_perc=round((((b-a)*100)/b),2)
        print(f"THE LOSS % IS {l_perc}%")
        f.write("THELOSS%IS"+str(l_perc))
    loss_()

elif st==2.5:
    def sp_():
        g=eval(input("ENTER THE PROFIT%="))
        b=eval(input("ENTER THE CP="))
        s=round((((100+g)*b)/100),2)
        print(f"THE SP IS {s}")
        f.write("THE SP IS"+str(s))
    sp_()

elif st==2.6:
    def sp2_():
        l=eval(input("ENTER THE LOSS%="))
        b=eval(input("ENTER THE CP="))
        s=round((((100-l)*b)/100),2)
        print(f"THE SP IS {s}")
        f.write("THE SP IS"+str(s))
    sp2_()

elif st==2.7:
    def cp_():
        g=eval(input("ENTER THE PROFIT%="))
        b=eval(input("ENTER THE SP="))
        c=round((((100/(100+g))*b),2)
        print(f"THE CP IS {c}")
        f.write("THE CP IS"+str(c))
    cp_()

elif st==2.8:
    def cp_():
        l=eval(input("ENTER THE LOSS%="))
        b=eval(input("ENTER THE SP="))
        c=round((((100/(100-l))*b),2)
        print(f"THE CP IS {c}")
        f.write("THE CP IS"+str(c))
    cp_()

elif st==2.9:
    def d():
        m=eval(input("ENTER THE MRP="))
        s=eval(input("ENTER THE SP="))
        D=round((m-s),2)
        print(f"THE DISCOUNT IS {D}")
        f.write("THE DISCOUNT IS"+str(D))
    d()

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elif st==2.91:
    def d_per():
        m=eval(input("ENTER THE MRP="))
        s=eval(input("ENTER THE SP="))
        D_=round(((m-s)*100)/s),2
        print(f"THE DISCOUNT%IS{D_}%")
        f.write("THE DISCOUNT%IS"+str(D_))
    d_per()

else:
    print("RIGHT NOW WE HAVE ONLY THIS MUCH.")

elif select==3:
    print("A. S.NO=3.1 IS FOR-DISTANCE BETWEEN TWO POINTS".center(65))
    print("B.S.NO=3.2 IS FOR-FINDING LINE SEGMENT DIVIDER.".center(65))
    print("C. S.NO=3.3 IS FOR-FINDING AREA OF TRIANGLE ".center(65))
    print("D.S.NO=3.4 IS FOR-FINDING COORDINATES OF CENTROID".center(65))

    t=float(input("enter serial no. of topic according to your needs=")) if

t==3.1:
    def d_f():
        x1,x2=input("ENTER BOTH X-COORDINATES SEP BY COMMA=").split(",")
        y1,y2=input("ENTER BOTH Y-COORDINATES SEP BY COMMA=").split(",")
        D=round((((eval(x1)-eval(x2))**2)+(eval(y1)-eval(y2))**2)**0.5),2)
        print(f"THE DISTANCE BETWEEN THE GIVEN POINTS IS {D} UNITS")
        f.write("distance between the points is"+str(D)) d_f()

    elif t==3.2:
        def p():
            x1,x2=input("ENTER BOTH X-COORDINATES SEP BY COMMA=").split(",")
            y1,y2=input("ENTER BOTH Y-COORDINATES SEP BY COMMA=").split(",")
            p,q=input("ENTER THE RATIO OF DIVISION SEP BY COMMA=").split(",")
            X=round((((eval(p)*eval(x2)))+(eval(q)*eval(x1)))/(eval(p)+eval(q))),2)
            Y=round((((eval(p)*eval(y2))+eval(q)*eval(y1)))/(eval(p)+eval(q))),2)
            print(f"THE COORDINATES OF THE DIVIDER POINT IS ({X},{Y})")
            f.write("x-coordinate of divider point is"+str(X))
            f.write("y-coordinate of divider point is"+str(Y))
        p()

    elif t==3.3:
        def A():
            x1,x2,x3=input("ENTER ALL X-COORDINATES sep by comma=").split(",")
            y1,y2,y3=input("ENTER ALL Y-COORDINATES sep by comma=").split(",")
            p=eval(x1)*(eval(y2)-eval(y3))
            q=eval(x2)*(eval(y3)-eval(y1))
            r=eval(x3)*(eval(y1)-eval(y2))
            t=(p+q+r)/2
            print(f"THE AREA OF TRIANGLE IS ({round((abs(t)),2)}) SQUARE UNITS")
            f.write("the area of triangle is"+str(t))
        A()

    elif t==3.4:
        def _area():
            x1,x2,x3=input("ENTER ALL X-COORDINATES sep by comma=").split(",")
            y1,y2,y3=input("ENTER ALL Y-COORDINATES sep by comma=").split(",")

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a=str((eval(x1)+eval(x2)+eval(x3))/3)+", "
b=str((eval(y1)+eval(y2)+eval(y3))/3)
c=a+b
print(f"COORDINATESOFCENTROIDFORMEDIS({c})")
f.write("coordinatesofvcentroidformed"+str(c))
_area()

elifselect==4:
    print("A. S.NO=4.1 IS FOR- ALL TRIGNOMTRIC RATIOS ".center(80))
    print("B.S.NO=4.2ISFOR-SIN(X+Y),COS(X+Y),TAN(X+Y)".center(80))
    print("C.S.NO=4.3ISFOR-SIN(X-Y),COS(X-Y),TAN(X-Y)".center(80))
    print("D.S.NO=4.4ISFOR-SIN(X)+SIN(Y), COS(X)+COS(Y)".center(80))
    print("E.S.NO=4.5ISFOR-SIN(X)-SIN(Y),COS(X)-COS(Y)".center(80))
    print("E.S.NO=4.6ISFOR-SIN(2X),COS(2X),TAN(2X)".center(80))
    print("F.S.NO=4.7ISFOR-SIN(3X),COS(3X),TAN(3X)".center(80))
    print("G.S.NO=4.8ISFOR-SIN(X/2),COS(X/2),TAN(X/2)".center(80))

q=float(input("enteryourrespectedserialno.oftopic=")) from
math import *

ifq==4.1:
    x=eval(input("enterthevalueoftheta[FOREG:-pi/4]=")) if
    x!=0:
        deftr():
            print(f"THE VALUE OF SIN(x) is {round(sin(x),2)}")
            print(f"THE VALUE OF COS(x)is {round(cos(x),2)}")
            print(f"THE VALUE OF TAN(x) is {round(tan(x),2)}")
            print(f"THE VALUE OF SEC(x) is {round((1/sin(x)),2)}")
            print(f"THEVALUEOFCOSEC(x)is{round((1/cos(x)),2)}")
            print(f"THE VALUE OF COT(x)is {round((1/tan(x)),2)}")
        tr()

    else:
        print(f"THEVALUEOFSIN(x)is0")print(f"THEVALUEOF
        COS(x)is1") print(f"THEVALUEOFTAN(x)is0")
        print(f"THEVALUEOFCOSEC(x)isNOT-DEFINED")
        print(f"THE VALUE OF SEC(x)is 1")
        print(f"THEVALUEOFCOT(x)isNOT-DEFINED")

elifq==4.2:
    def tr2():
        x=eval(input("enterthe1stangle="))
        y=eval(input("enterthe2ndangle="))
        m=round(cos(x+y),2)
        n=round(cos(x+y),2)
        o=round(((tan(x)+tan(y))/1-tan(x)*tan(y)),2)
        print(f" THE VALUE OF SIN(x+y) IS {m}")
        print(f"THE VALUE OF COS(x+y) IS {n}")
        print(f" THE VALUE OF TAN(x+y) IS {o}")
        write("THE VALUE OF SIN(x+y) IS"+str(m))
        write("THEVALUEOFCOS(x+y)IS"+str(n)) write("
        THE VALUE OF TAN(x+y) IS "+str(o))
    tr2()

elifq==4.3:
    def tr3():
        x=eval(input("enterthe1stangle="))

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        y=eval(input("enterthe2ndangle="))
        a=round(cos(x-y),2)
        b=round(cos(x-y),2)
        m=round(((tan(x)-tan(y))/1+tan(x)*tan(y)),2)
        print(f" THE VALUE OF SIN(x-y) IS {a}")
        print(f"THE VALUE OF COS(x-y) IS {b}")
        print(f" THE VALUE OF TAN(x-y) IS {m}")
    tr3()

elifq==4.4:
    def tr4():
        x=eval(input("enter the 1st angle="))
        y=eval(input("enter the 2nd angle="))
        m=round((2*sin((x+y)/2)*cos((x-y)/2)),2)
        print(f"THEVALUEOFSIN(x)+SIN(y)IS{m}")
        n=round((2*cos((x+y)/2)*cos((x-y)/2)),2)
        print(f"THEVALUEOFCOS(x)+COS(y)IS{n}")
        f.write("VALUEOFSIN(x)-SIN(y)IS"+str(m))
        f.write("VALUE OF COSx)-COS(y) IS"+str(n))
    tr4()

elifq==4.5:
    def tr5():
        x=eval(input("enter the 1st angle="))
        y=eval(input("enter the 2nd angle="))
        m=round((2*cos((x+y)/2)*sin((x-y)/2)),2)
        print(f"THEVALUEOFSIN(x)-SIN(y)IS{m}")
        n=round((-2*sin((x+y)/2)*sin((x-y)/2)),2)
        print(f"THEVALUEOFCOS(x)-COS(y)IS{n}")
        f.write("VALUEOFSIN(x)-SIN(y)IS"+str(m))
        f.write("VALUE OF COSx)-COS(y) IS"+str(n))
    tr5()

elifq==4.6:
    def tr6():
        x=eval(input("enterthevalueoftheta="))
        a=round((2*cos(x)*sin(x)),2)
        b=round((1-2*sin(x)**2),2)
        c=round((2*tan(x)/1-tan(x)**2),2)
        print(f"THEVALUEOFSIN2(x)is{a}")
        print(f"THEVALUEOFCOS2(x)is{b}")
        print(f"THEVALUEOFTAN2(x)is{c}")
        f.write("VALUE OF SIN2(x)" +str(a))
        f.write("VALUE OF cos2(x)" +str(b))
        f.write("VALUE OF Stan2(x)" +str(c))
    tr6()

elifq==4.7:
    def tr7():
        x=eval(input("enterthevalueoftheta="))
        a=round((3*sin(x)-4*sin(x)**3),2)
        b=round((4*cos(x)**3-3*cos(x)),2)
        c=round((3*tan(x)-tan(x)**3/1-3*tan(x)**2),2)
        print(f"THE VALUE OF SIN3(x) is {a}")
        print(f"THE VALUE OF COS3(x) is {b}")
        print(f"THE VALUE OF TAN3(x) is {c}")
        f.write("VALUE OF SIN3(x)" +str(a))
        f.write("VALUE OF cos3(x)" +str(b))
        f.write("VALUE OF Stan3(x)" +str(c))
    tr7()

elifq==4.8:

```

```

def tr8():
    x=eval(input("enter the value of theta="))
    a=round((((1-cos(x))/2)**0.5),2)
    b=round((((1+cos(x))/2)**0.5),2)
    c=round((sin(x)/1+cos(x)),2)
    print(f"THE VALUE OF SIN(x)/2 is {a}")
    print(f"THE VALUE OF COS(x)/2 is {b}")
    print(f"THE VALUE OF TAN(x)/2 is {c}")
    f.write("VALUE OF SIN(x)/2"+str(a))
    f.write("VALUE OF cos(x)/2"+str(b))
    f.write("VALUE OF Stan(x)/2"+str(c))
tr8()

elif select==5:
    print("A. S.NO=5.1 IS to find MEAN,MEDIAN,MODE".center(74))
    print("B.S.NO=5.2 IS to find MEIDAN_HIGH,MEDIAN_LOW".center(80))
    print("C. S.NO=5.3 IS to find STANDARD_DEVIATION".center(75))
    print("D. S.NO=5.4 IS to find VARIANCE ".center(67))

    from statistics import *

    s=float(input("enter the respective serial no.="))
    A=eval(input("enter the elements separated by comma="))
    a=list(A)

    if s==5.1:
        print(f"THE MEAN IN {a} IS {mean(a)}")
        print(f"THE MEDIAN IN {a} IS {median(a)}")
        print(f"THE Mode IN {a} IS {mode(a)}")
        f.write("mean is "+str(mean(a)))
        f.write("median is "+str(median(a)))
        f.write("mode is "+str(mode(a)))

    elif s==5.2:
        print(f"THE MEDIAN_high IN {a} IS {median_high(a)}")
        print(f"THE MEDIAN_low IN {a} IS {median_low(a)}")
        print(f"THE HARMONIC_MEAN IN {a} IS {harmonic_mean(a)}")
        f.write("the median high is "+str(median_high(a)))
        f.write("the median low is "+str(median_low(a)))

    elif s==5.3:
        print(f"THE STANDARD DEVIATION {stdev(a)}")

    elif s==5.4:
        print(f"THE VARIANCE IN {a} IS {variance(a)}")
        f.write("the variance is "+str(variance(a)))
    else:
        print(f"we have this data only")

f.close()

```

**END OF SOURCE CODE.**

# OUTPUT OF PROJECT FILE.[A S SCREENSHOTS]

## MENSURATION-RELATED OPERATIONS

### • 2-DIMENSION FIGURES

#### SQUARE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win3
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\aman
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-

A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=2-d
  A. S.NO=1.1 IS FOR-square
  B. S.NO=1.2 IS FOR-rectangle
  C. S.NO=1.3 IS FOR-triangle
  D. S.NO=1.4 IS FOR-rohmbus
  E. S.NO=1.5 IS FOR-parelelogram
  F. S.NO=1.6 IS FOR-circle
  G. S.NO=1.7 IS FOR-quadrailateral
enter your s.no. according to your choice=1.1
enter length of side of square=12
THE AREA OF SQUARE IS 144 SQUARE UNITS
THE PERIMETER OF SQUARE IS 48 UNITS
THE DIAGONAL OF SQUARE IS 16.92 UNITS

PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-

A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## RECTANGLE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=2-d
A. S.NO=1.1 IS FOR-square
B. S.NO=1.2 IS FOR-rectangle
C. S.NO=1.3 IS FOR-triangle
D. S.NO=1.4 IS FOR-rohmbus
E. S.NO=1.5 IS FOR-parelelogram
F. S.NO=1.6 IS FOR-circle
G. S.NO=1.7 IS FOR-quadrailateral
enter your s.no. according to your choice=1.2
enter len and br of rectangle sep bycomma=12,14
THE AREA OF RECTANGLE IS 168 SQUARE UNITS
THE PERIMETER OF RECTANGLE IS 52 UNITS
THE DIAGONAL OF RECTANGLE IS 18.44 UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## TRIANGLE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=2-d
A. S.NO=1.1 IS FOR-square
B. S.NO=1.2 IS FOR-rectangle
C. S.NO=1.3 IS FOR-triangle
D. S.NO=1.4 IS FOR-rohmbus
E. S.NO=1.5 IS FOR-parelelogram
F. S.NO=1.6 IS FOR-circle
G. S.NO=1.7 IS FOR-quadrailateral
enter your s.no. according to your choice=1.3
enter the three sides of triangle sep by comma =3,3,4
THE AREA OF TRIANGLE IS 20.0 SQUARE UNITS
THE PERIMETER OF TRIANGLE IS 10 UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## ROHMBUS

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=2-d
A. S.NO=1.1 IS FOR-square
B. S.NO=1.2 IS FOR-rectangle
C. S.NO=1.3 IS FOR-triangle
D. S.NO=1.4 IS FOR-rohmbus
E. S.NO=1.5 IS FOR-parelelogram
F. S.NO=1.6 IS FOR-circle
G. S.NO=1.7 IS FOR-quadrailateral
enter your s.no. according to your choice=1.4
enter two diagonals seprated by comma=12,16
THE AREA OF ROHMBUS 96.0 SQUARE UNITS
THE PERIMETER OF ROHMBUS IS 40.0 UNITS
THE SIDE OF ROHMBUS IS 10.0 UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=|
```

## PARRELELOGRAM

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=2-d
A. S.NO=1.1 IS FOR-square
B. S.NO=1.2 IS FOR-rectangle
C. S.NO=1.3 IS FOR-triangle
D. S.NO=1.4 IS FOR-rohmbus
E. S.NO=1.5 IS FOR-parelelogram
F. S.NO=1.6 IS FOR-circle
G. S.NO=1.7 IS FOR-quadrailateral
enter your s.no. according to your choice=1.5
enter base and height of //gm sep by comma=12,6
THE AREA OF parelelogram IS 72 SQUARE UNITS
THE PERMETER OF paralelogram IS 36 UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=|
```

## CIRCLE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=2-d
A. S.NO=1.1 IS FOR-square
B. S.NO=1.2 IS FOR-rectangle
C. S.NO=1.3 IS FOR-triangle
D. S.NO=1.4 IS FOR-rohmbus
E. S.NO=1.5 IS FOR-parelelogram
F. S.NO=1.6 IS FOR-circle
G. S.NO=1.7 IS FOR-quadrailateral
enter your s.no. according to your choice=1.6
enter the radius and subtended angle sep. by comma=7,pi
THE AREA OF CIRCLE IS 76.93 SQUARE UNITS
THE CIRCUMFERENCE OF CIRCLE IS 43.98 UNITS
THE LENGTH OF SUBTENDE-ARC OF CIRCLE IS 21.98 UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=|
```

## QUADRILATERAL

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=2-d
A. S.NO=1.1 IS FOR-square
B. S.NO=1.2 IS FOR-rectangle
C. S.NO=1.3 IS FOR-triangle
D. S.NO=1.4 IS FOR-rohmbus
E. S.NO=1.5 IS FOR-parelelogram
F. S.NO=1.6 IS FOR-circle
G. S.NO=1.7 IS FOR-quadrailateral
enter your s.no. according to your choice=1.7
enter all sides of quad. seperated by comma=1,1,1,1
THE AREA OF QUADRILATERAL IS 1.08sq.units
THE PERIMETER OF QUADRILATERAL IS 4.0 UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```



## 3-DIMENSIONFIGURES.

### CUBE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=3-d
A. S.NO=1.1 IS FOR-cube
B. S.NO=1.2 IS FOR-cuboid
C. S.NO=1.3 IS FOR-cylinder
D. S.NO=1.4 IS FOR-sphere
E. S.NO=1.5 IS FOR-hemisphere
F. S.NO=1.6 IS FOR-cone
G. S.NO=1.7 IS FOR-frustum
enter your serial no. according to your choice=1.1
enter length of side of cube=12
THE LATERAL AREA OF CUBE IS 576 SQUARE UNITS
THE TOTAL AREA OF CUBE IS 864 SQUARE UNITS
THE VOLUME OF CUBE IS 1728 UNITS
THE DIAGONAL OF CUBE IS 20.78 UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

### CUBOID

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=3-d
A. S.NO=1.1 IS FOR-cube
B. S.NO=1.2 IS FOR-cuboid
C. S.NO=1.3 IS FOR-cylinder
D. S.NO=1.4 IS FOR-sphere
E. S.NO=1.5 IS FOR-hemisphere
F. S.NO=1.6 IS FOR-cone
G. S.NO=1.7 IS FOR-frustum
enter your serial no. according to your choice=1.2
enter l,b,h of side of cuboid sep by comma =10,12,14
THE LATERAL AREA OF CUBOID IS 616 SQUARE UNITS
THE TOTAL AREA OF CUBOID IS 856 SQUARE UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```



## CYLINDER

```
Python 3.10.2
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=3-d
A. S.NO=1.1 IS FOR-cube
B. S.NO=1.2 IS FOR-cuboid
C. S.NO=1.3 IS FOR-cylinder
D. S.NO=1.4 IS FOR-sphere
E. S.NO=1.5 IS FOR-hemisphere
F. S.NO=1.6 IS FOR-cone
G. S.NO=1.7 IS FOR-frustum
enter your serial no. according to your choice=1.3
enter rad and he of cylinder sep by comma =7,14
THE CURVED AREA OF CYLINDER IS 615.75 SQUARE UNITS
THE TOTAL AREA OF CYLINDER IS 923.63 SQUARE UNITS
THE VOLUME OF CYLINDER IS 2155.13 UNITS
THE DIAGONAL OF CYLINDER IS 19.8 UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## SPHERE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=3-d
A. S.NO=1.1 IS FOR-cube
B. S.NO=1.2 IS FOR-cuboid
C. S.NO=1.3 IS FOR-cylinder
D. S.NO=1.4 IS FOR-sphere
E. S.NO=1.5 IS FOR-hemisphere
F. S.NO=1.6 IS FOR-cone
G. S.NO=1.7 IS FOR-frustum
enter your serial no. according to your choice=1.4
enter radius of sphere=7
THE TOTAL AREA OF SPHERE IS 615.75 SQUARE UNITS
THE VOLUME OF SPHERE IS 1436.76 UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## HEMISPHERE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=3-d
A. S.NO=1.1 IS FOR-cube
B. S.NO=1.2 IS FOR-cuboid
C. S.NO=1.3 IS FOR-cylinder
D. S.NO=1.4 IS FOR-sphere
E. S.NO=1.5 IS FOR-hemisphere
F. S.NO=1.6 IS FOR-cone
G. S.NO=1.7 IS FOR-frustum
enter your serial no. according to your choice=1.5
enter radius of hemisphere=7
THE LATERAL AREA OF HEMISPHERE IS 307.88 SQUARE UNITS
THE TOTAL AREA OF HEMISPHERE IS 461.81 SQUARE UNITS
THE VOLUME OF HEMISPHERE IS 718.38 UNITS
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## CONE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=3-d
A. S.NO=1.1 IS FOR-cube
B. S.NO=1.2 IS FOR-cuboid
C. S.NO=1.3 IS FOR-cylinder
D. S.NO=1.4 IS FOR-sphere
E. S.NO=1.5 IS FOR-hemisphere
F. S.NO=1.6 IS FOR-cone
G. S.NO=1.7 IS FOR-frustum
enter your serial no. according to your choice=1.6
enter radius and height of cone sep by comma =14,7
THE CURVED AREA OF CONE IS 688.43 SQUARE UNITS
THE TOTAL AREA OF CONE IS 1304.18 SQUARE UNITS
THE VOLUME OF CONE IS 1436.76 UNITS
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## FRUSTUM

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=1
enter [2-D] OR [3-D] FOR TYPE OF FIGURE.=3-d
A. S.NO=1.1 IS FOR-cube
B. S.NO=1.2 IS FOR-cuboid
C. S.NO=1.3 IS FOR-cylinder
D. S.NO=1.4 IS FOR-sphere
E. S.NO=1.5 IS FOR-hemisphere
F. S.NO=1.6 IS FOR-cone
G. S.NO=1.7 IS FOR-frustum
enter your serial no. according to your choice=1.7
enter sm & lg radii and hei sep by comma=7,14,7
THE CURVED AREA OF FRUSTUM IS 653.1 SQUARE UNITS
THE TOTAL AREA OF FRUSTUM IS 1422.79 SQUARE UNITS
THE VOLUME OF FRUSTUM IS 2514.32 UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

# COMMERCIAL MATHEMATICS.

## PROFIT

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=2
A. S.NO=2.1 IS FOR-FINDING PROFIT
B. S.NO=2.2 IS FOR-FINDING LOSS
C. S.NO=2.3 IS FOR-FINDING PROFIT %
D. S.NO=2.4 IS FOR-FINDING LOSS %
E. S.NO=2.5 IS FOR-FINDING SP GIVEN P% & cp
F. S.NO=2.6 IS FOR-FINDING SP GIVEN L% & cp
G. S.NO=2.7 IS FOR-FINDING CP GIVEN P% & sp
H. S.NO=2.8 IS FOR-FINDING CP GIVEN L% & sp
I. S.NO=2.9 IS FOR-FINDING DISCOUNT
J. S.NO=2.91 IS FOR-FINDING DISCOUNT %
enter your respected serial no. of topic=2.1
ENTER THE SP=1000
ENTER THE CP=800
THE PROFIT IS 200
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=|
```

## LOSS

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=2
A. S.NO=2.1 IS FOR-FINDING PROFIT
B. S.NO=2.2 IS FOR-FINDING LOSS
C. S.NO=2.3 IS FOR-FINDING PROFIT %
D. S.NO=2.4 IS FOR-FINDING LOSS %
E. S.NO=2.5 IS FOR-FINDING SP GIVEN P% & cp
F. S.NO=2.6 IS FOR-FINDING SP GIVEN L% & cp
G. S.NO=2.7 IS FOR-FINDING CP GIVEN P% & sp
H. S.NO=2.8 IS FOR-FINDING CP GIVEN L% & sp
I. S.NO=2.9 IS FOR-FINDING DISCOUNT
J. S.NO=2.91 IS FOR-FINDING DISCOUNT %
enter your respected serial no. of topic=2.2
ENTER THE SP=6660
ENTER THE CP=8000
THE LOSS IS 1340
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=|
```

## PROFIT PERCENT

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=2
A. S.NO=2.1 IS FOR-FINDING PROFIT
B. S.NO=2.2 IS FOR-FINDING LOSS
C. S.NO=2.3 IS FOR-FINDING PROFIT_%
D. S.NO=2.4 IS FOR-FINDING LOSS_%
E. S.NO=2.5 IS FOR-FINDING SP GIVEN P% & cp
F. S.NO=2.6 IS FOR-FINDING SP GIVEN L% & cp
G. S.NO=2.7 IS FOR-FINDING CP GIVEN P% & sp
H. S.NO=2.8 IS FOR-FINDING CP GIVEN L% & sp
I. S.NO=2.9 IS FOR-FINDING DISCOUNT
J. S.NO=2.91 IS FOR-FINDING DISCOUNT_%
enter your respected serial no. of topic=2.3
ENTER THE SP=1000
ENTER THE CP=600
THE PROFIT % IS 66.67%
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## LOSSPERCENT

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=2
A. S.NO=2.1 IS FOR-FINDING PROFIT
B. S.NO=2.2 IS FOR-FINDING LOSS
C. S.NO=2.3 IS FOR-FINDING PROFIT_%
D. S.NO=2.4 IS FOR-FINDING LOSS_%
E. S.NO=2.5 IS FOR-FINDING SP GIVEN P% & cp
F. S.NO=2.6 IS FOR-FINDING SP GIVEN L% & cp
G. S.NO=2.7 IS FOR-FINDING CP GIVEN P% & sp
H. S.NO=2.8 IS FOR-FINDING CP GIVEN L% & sp
I. S.NO=2.9 IS FOR-FINDING DISCOUNT
J. S.NO=2.91 IS FOR-FINDING DISCOUNT_%
enter your respected serial no. of topic=2.4
ENTER THE SP=40
ENTER THE CP=100
THE LOSS % IS 60.0%
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## SP -GIVENP%AND CPP

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=2
A. S.NO=2.1 IS FOR-FINDING PROFIT
B. S.NO=2.2 IS FOR-FINDING LOSS
C. S.NO=2.3 IS FOR-FINDING PROFIT_%
D. S.NO=2.4 IS FOR-FINDING LOSS_%
E. S.NO=2.5 IS FOR-FINDING SP GIVEN P% & cp
F. S.NO=2.6 IS FOR-FINDING SP GIVEN L% & cp
G. S.NO=2.7 IS FOR-FINDING CP GIVEN P% & sp
H. S.NO=2.8 IS FOR-FINDING CP GIVEN L% & sp
I. S.NO=2.9 IS FOR-FINDING DISCOUNT
J. S.NO=2.91 IS FOR-FINDING DISCOUNT_%
enter your respected serial no. of topic=2.5
ENTER THE PROFIT %=20
ENTER THE CP=100
THE SP IS 120.0
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## FINDINGSP-GIVENL%ANDCPP

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=2
A. S.NO=2.1 IS FOR-FINDING PROFIT
B. S.NO=2.2 IS FOR-FINDING LOSS
C. S.NO=2.3 IS FOR-FINDING PROFIT_%
D. S.NO=2.4 IS FOR-FINDING LOSS_%
E. S.NO=2.5 IS FOR-FINDING SP GIVEN P% & cp
F. S.NO=2.6 IS FOR-FINDING SP GIVEN L% & cp
G. S.NO=2.7 IS FOR-FINDING CP GIVEN P% & sp
H. S.NO=2.8 IS FOR-FINDING CP GIVEN L% & sp
I. S.NO=2.9 IS FOR-FINDING DISCOUNT
J. S.NO=2.91 IS FOR-FINDING DISCOUNT_%
enter your respected serial no. of topic=2.6
ENTER THE LOSS %=10
ENTER THE CP=1000
THE SP IS 900.0
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```



## CP-GIVENP%ANDSP

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=2
A. S.NO=2.1 IS FOR-FINDING PROFIT
B. S.NO=2.2 IS FOR-FINDING LOSS
C. S.NO=2.3 IS FOR-FINDING PROFIT_%
D. S.NO=2.4 IS FOR-FINDING LOSS_%
E. S.NO=2.5 IS FOR-FINDING SP GIVEN P% & cp
F. S.NO=2.6 IS FOR-FINDING SP GIVEN L% & cp
G. S.NO=2.7 IS FOR-FINDING CP GIVEN P% & sp
H. S.NO=2.8 IS FOR-FINDING CP GIVEN L% & sp
I. S.NO=2.9 IS FOR-FINDING DISCOUNT
J. S.NO=2.91 IS FOR-FINDING DISCOUNT_%
enter your respected serial no. of topic=2.7
ENTER THE PROFIT %=20
ENTER THE SP=1000
THE CP IS 833.33
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## CP-GIVENL%ANDSP

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=2
A. S.NO=2.1 IS FOR-FINDING PROFIT
B. S.NO=2.2 IS FOR-FINDING LOSS
C. S.NO=2.3 IS FOR-FINDING PROFIT_%
D. S.NO=2.4 IS FOR-FINDING LOSS_%
E. S.NO=2.5 IS FOR-FINDING SP GIVEN P% & cp
F. S.NO=2.6 IS FOR-FINDING SP GIVEN L% & cp
G. S.NO=2.7 IS FOR-FINDING CP GIVEN P% & sp
H. S.NO=2.8 IS FOR-FINDING CP GIVEN L% & sp
I. S.NO=2.9 IS FOR-FINDING DISCOUNT
J. S.NO=2.91 IS FOR-FINDING DISCOUNT_%
enter your respected serial no. of topic=2.8
ENTER THE LOSS %=10
ENTER THE SP=1900
THE CP IS 2111.11
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

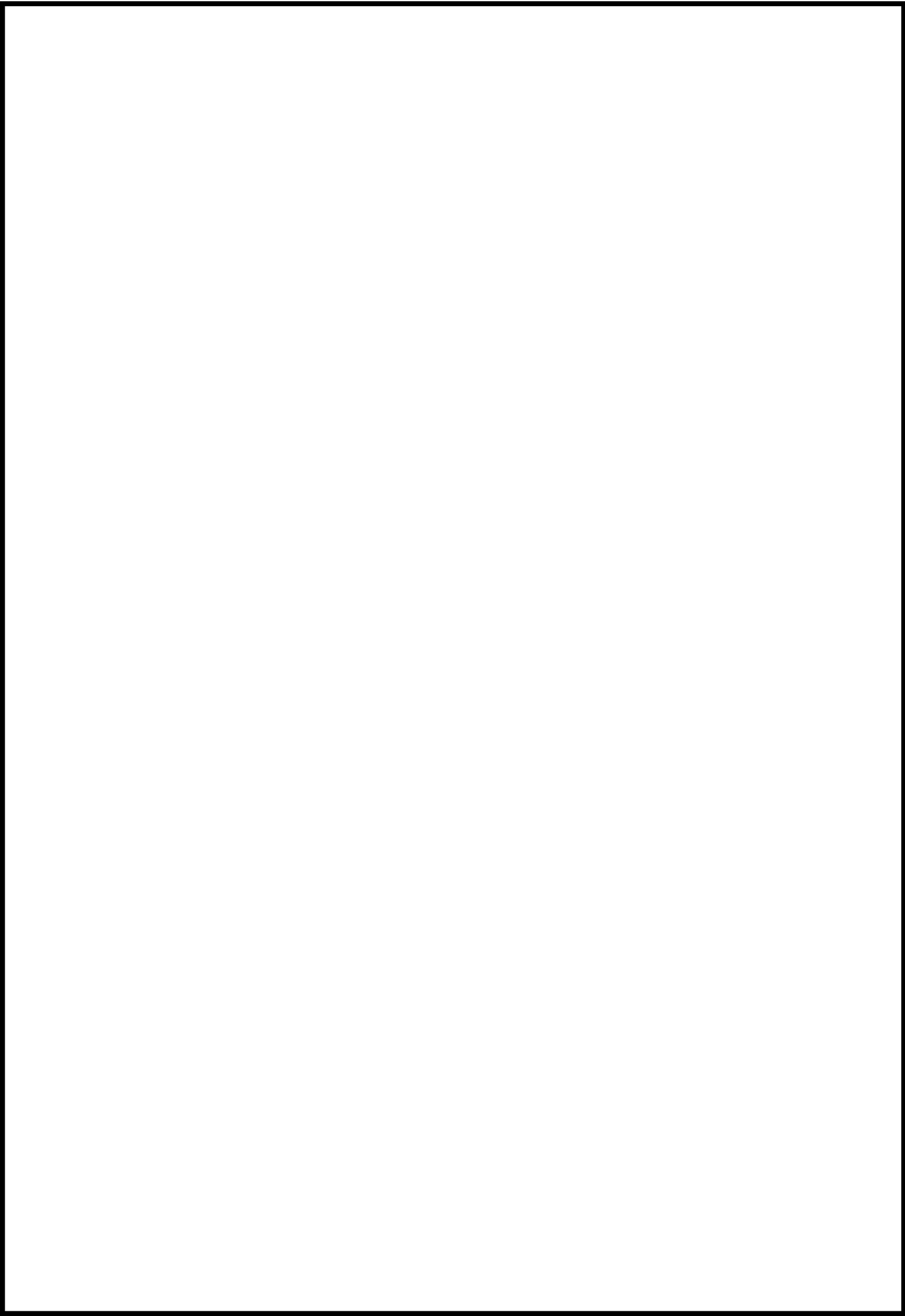
## DISCOUNT

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=2
A. S.NO=2.1 IS FOR-FINDING PROFIT
B. S.NO=2.2 IS FOR-FINDING LOSS
C. S.NO=2.3 IS FOR-FINDING PROFIT_%
D. S.NO=2.4 IS FOR-FINDING LOSS_%
E. S.NO=2.5 IS FOR-FINDING SP GIVEN P% & cp
F. S.NO=2.6 IS FOR-FINDING SP GIVEN L% & cp
G. S.NO=2.7 IS FOR-FINDING CP GIVEN P% & sp
H. S.NO=2.8 IS FOR-FINDING CP GIVEN L% & sp
I. S.NO=2.9 IS FOR-FINDING DISCOUNT
J. S.NO=2.91 IS FOR-FINDING DISCOUNT_%
enter your respected serial no. of topic=2.9
ENTER THE MRP=100
ENTER THE SP=40
THE DISCOUNT IS 60
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## DISCOUNTPERCENT

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=2
A. S.NO=2.1 IS FOR-FINDING PROFIT
B. S.NO=2.2 IS FOR-FINDING LOSS
C. S.NO=2.3 IS FOR-FINDING PROFIT_%
D. S.NO=2.4 IS FOR-FINDING LOSS_%
E. S.NO=2.5 IS FOR-FINDING SP GIVEN P% & cp
F. S.NO=2.6 IS FOR-FINDING SP GIVEN L% & cp
G. S.NO=2.7 IS FOR-FINDING CP GIVEN P% & sp
H. S.NO=2.8 IS FOR-FINDING CP GIVEN L% & sp
I. S.NO=2.9 IS FOR-FINDING DISCOUNT
J. S.NO=2.91 IS FOR-FINDING DISCOUNT_%
enter your respected serial no. of topic=2.91
ENTER THE MRP=10000
ENTER THE SP=8850
THE DISCOUNT % IS 12.99%
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```





# COORDINATE GEOMETRY

## DISTANCE BETWEEN POINTS

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=3
    A. S.NO=3.1 IS FOR-DISTANCE BETWEEN TWO POINTS
    B. S.NO=3.2 IS FOR-FINDIG LINE SEGMENT DIVIDER.
    C. S.NO=3.3 IS FOR-FINDING AREA OF TRIANGLE
    D. S.NO=3.4 IS TO FIND COORDINATES OF CENTROID
enter serial no. of topic according to your needs=3.1
ENTER BOTH X-COORDINATES SEP BY COMMA =1,1
ENTER BOTH Y-COORDINATES SEP BY COMMA =4,6
THE DISTANCE BETWEEN THE GIVEN POINTS IS 2.0 UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## DIVIDER POINT

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=3
    A. S.NO=3.1 IS FOR-DISTANCE BETWEEN TWO POINTS
    B. S.NO=3.2 IS FOR-FINDIG LINE SEGMENT DIVIDER.
    C. S.NO=3.3 IS FOR-FINDING AREA OF TRIANGLE
    D. S.NO=3.4 IS TO FIND COORDINATES OF CENTROID
enter serial no. of topic according to your needs=3.2
ENTER BOTH X-COORDINATES SEP BY COMMA =1,1
ENTER BOTH Y-COORDINATES SEP BY COMMA =4,6
ENTER THE RATIO OF DIVISION SEP BY COMMA =1,2
THE COORDINATES OF THE DIVIDER POINT IS (1.0,4.67)
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## AREA OF TRIANGLE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=3
    A. S.NO=3.1 IS FOR-DISTANCE BETWEEN TWO POINTS
    B. S.NO=3.2 IS FOR-FINDIG LINE SEGMENT DIVIDER.
    C. S.NO=3.3 IS FOR-FINDING AREA OF TRIANGLE
    D. S.NO=3.4 IS TO FIND COORDINATES OF CENTROID
enter serial no. of topic according to your needs=3.3
ENTER ALL X-COORDINATES sep by comma=-4,0,8
ENTER ALL Y-COORDINATES sep by comma=0,4,0
The AREA OF TRIANGLE IS (24.0) SQUARE UNITS
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## CENTROID FINDER

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\amank\Videos\check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=3
    A. S.NO=3.1 IS FOR-DISTANCE BETWEEN TWO POINTS
    B. S.NO=3.2 IS FOR-FINDIG LINE SEGMENT DIVIDER.
    C. S.NO=3.3 IS FOR-FINDING AREA OF TRIANGLE
    D. S.NO=3.4 IS TO FIND COORDINATES OF CENTROID
enter serial no. of topic according to your needs=3.4
ENTER ALL X-COORDINATES sep by comma=0,-4,8
ENTER ALL Y-COORDINATES sep by comma=4,8,6
COORDINATES OF CENTROID FORMED IS (1.3333333333333333,6.0)
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```



# TRIGNOMETRIC-RELATED OPERATIONS.

## ALL TRIGNOMTETRIC FUNCTIONS

```
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=4
A. S.NO=4.1 IS FOR- ALL TRIGNOMTRIC RATIOS
B. S.NO=4.2 IS FOR- SIN(X+Y), COS(X+Y), TAN(X+Y)
C. S.NO=4.3 IS FOR- SIN(X-Y), COS(X-Y), TAN(X-Y)
D. S.NO=4.4 IS FOR- SIN(X)+SIN(Y), COS(X)+COS(Y)
E. S.NO=4.5 IS FOR- SIN(X)-SIN(Y), COS(X)-COS(Y)
F. S.NO=4.6 IS FOR- SIN(2X), COS(2X), TAN(2X)
G. S.NO=4.7 IS FOR- SIN(3X), COS(3X), TAN(3X)
H. S.NO=4.8 IS FOR- SIN(X/2), COS(X/2), TAN(X/2)
enter your respected serial no. of topic=4.1
enter the value of theta [FOR EG:-pi/4]=pi/6
THE VALUE OF SIN(x) is 0.5
THE VALUE OF COS(x) is 0.87
THE VALUE OF TAN(x) is 0.58
THE VALUE OF SEC(x) is 2.0
THE VALUE OF COSEC(x) is 1.15
THE VALUE OF COT(x) is 1.73
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## SUM OF ANGLES

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=4
A. S.NO=4.1 IS FOR- ALL TRIGNOMTRIC RATIOS
B. S.NO=4.2 IS FOR- SIN(X+Y), COS(X+Y), TAN(X+Y)
C. S.NO=4.3 IS FOR- SIN(X-Y), COS(X-Y), TAN(X-Y)
D. S.NO=4.4 IS FOR- SIN(X)+SIN(Y), COS(X)+COS(Y)
E. S.NO=4.5 IS FOR- SIN(X)-SIN(Y), COS(X)-COS(Y)
F. S.NO=4.6 IS FOR- SIN(2X), COS(2X), TAN(2X)
G. S.NO=4.7 IS FOR- SIN(3X), COS(3X), TAN(3X)
H. S.NO=4.8 IS FOR- SIN(X/2), COS(X/2), TAN(X/2)
enter your respected serial no. of topic=4.2
enter the 1st angle=pi/3
enter the 2nd angle=pi/8
THE VALUE OF SIN(x+y) IS 0.13
THE VALUE OF COS(x+y) IS 0.13
THE VALUE OF TAN(x+y) IS 1.43
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## DIFFERENCE OF ANGLES

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-

A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=4
    A. S.NO=4.1 IS FOR- ALL TRIGNOMTRIC RATIOS
    B. S.NO=4.2 IS FOR- SIN(X+Y), COS(X+Y), TAN(X+Y)
    C. S.NO=4.3 IS FOR- SIN(X-Y), COS(X-Y), TAN(X-Y)
    D. S.NO=4.4 IS FOR- SIN(X)+SIN(Y), COS(X)+COS(Y)
    E. S.NO=4.5 IS FOR- SIN(X)-SIN(Y), COS(X)-COS(Y)
    F. S.NO=4.6 IS FOR- SIN(2X), COS(2X), TAN(2X)
    G. S.NO=4.7 IS FOR- SIN(3X), COS(3X), TAN(3X)
    H. S.NO=4.8 IS FOR- SIN(X/2), COS(X/2), TAN(X/2)
enter your respected serial no. of topic=4.3
enter the 1st angle=pi/6
enter the 2nd angle=pi/8
THE VALUE OF SIN(x-y) IS 0.99
THE VALUE OF COS(x-y) IS 0.99
THE VALUE OF TAN(x-y) IS 0.4
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-

A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## SUM OF TRIG. VALUES OF ANGLES

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-

A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=4
    A. S.NO=4.1 IS FOR- ALL TRIGNOMTRIC RATIOS
    B. S.NO=4.2 IS FOR- SIN(X+Y), COS(X+Y), TAN(X+Y)
    C. S.NO=4.3 IS FOR- SIN(X-Y), COS(X-Y), TAN(X-Y)
    D. S.NO=4.4 IS FOR- SIN(X)+SIN(Y), COS(X)+COS(Y)
    E. S.NO=4.5 IS FOR- SIN(X)-SIN(Y), COS(X)-COS(Y)
    F. S.NO=4.6 IS FOR- SIN(2X), COS(2X), TAN(2X)
    G. S.NO=4.7 IS FOR- SIN(3X), COS(3X), TAN(3X)
    H. S.NO=4.8 IS FOR- SIN(X/2), COS(X/2), TAN(X/2)
enter your respected serial no. of topic=4.4
enter the 1st angle=pi/2
enter the 2nd angle=pi/3
THE VALUE OF SIN(x)+SIN(y) IS 1.87
THE VALUE OF COS(x)+COS(y) IS 0.5
PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-

A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## DIFFERENCE OF TRIG. VALUES OF ANGLES

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=4
    A. S.NO=4.1 IS FOR- ALL TRIGNOMTRIC RATIOS
    B. S.NO=4.2 IS FOR- SIN(X+Y), COS(X+Y), TAN(X+Y)
    C. S.NO=4.3 IS FOR- SIN(X-Y), COS(X-Y), TAN(X-Y)
    D. S.NO=4.4 IS FOR- SIN(X)+SIN(Y), COS(X)+COS(Y)
    E. S.NO=4.5 IS FOR- SIN(X)-SIN(Y), COS(X)-COS(Y)
    F. S.NO=4.6 IS FOR- SIN(2X), COS(2X), TAN(2X)
    G. S.NO=4.7 IS FOR- SIN(3X), COS(3X), TAN(3X)
    H. S.NO=4.8 IS FOR- SIN(X/2), COS(X/2), TAN(X/2)
enter your respected serial no. of topic=4.5
enter the 1st angle=pi/2
enter the 2nd angle=pi/4
THE VALUE OF SIN(x)-SIN(y) IS 0.29
THE VALUE OF COS(x)-COS(y) IS -0.71
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## DOUBLE ANGLE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=4
    A. S.NO=4.1 IS FOR- ALL TRIGNOMTRIC RATIOS
    B. S.NO=4.2 IS FOR- SIN(X+Y), COS(X+Y), TAN(X+Y)
    C. S.NO=4.3 IS FOR- SIN(X-Y), COS(X-Y), TAN(X-Y)
    D. S.NO=4.4 IS FOR- SIN(X)+SIN(Y), COS(X)+COS(Y)
    E. S.NO=4.5 IS FOR- SIN(X)-SIN(Y), COS(X)-COS(Y)
    F. S.NO=4.6 IS FOR- SIN(2X), COS(2X), TAN(2X)
    G. S.NO=4.7 IS FOR- SIN(3X), COS(3X), TAN(3X)
    H. S.NO=4.8 IS FOR- SIN(X/2), COS(X/2), TAN(X/2)
enter your respected serial no. of topic=4.6
enter the value of theta=pi/4
THE VALUE OF SIN2(x) is 1.0
THE VALUE OF COS2(x) is -0.0
THE VALUE OF TAN2(x) is 1.0
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## TRIPLEANGLE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
                                     PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=4
    A. S.NO=4.1 IS FOR- ALL TRIGNOMTRIC RATIOS
    B. S.NO=4.2 IS FOR- SIN(X+Y), COS(X+Y), TAN(X+Y)
    C. S.NO=4.3 IS FOR- SIN(X-Y), COS(X-Y), TAN(X-Y)
    D. S.NO=4.4 IS FOR- SIN(X)+SIN(Y), COS(X)+COS(Y)
    E. S.NO=4.5 IS FOR- SIN(X)-SIN(Y), COS(X)-COS(Y)
    F. S.NO=4.6 IS FOR- SIN(2X), COS(2X), TAN(2X)
    G. S.NO=4.7 IS FOR- SIN(3X), COS(3X), TAN(3X)
    H. S.NO=4.8 IS FOR- SIN(X/2), COS(X/2), TAN(X/2)
enter your respected serial no. of topic=4.7
enter the value of theta=pi/3
THE VALUE OF SIN3(x) is 0.0
THE VALUE OF COS3(x) is -1.0
THE VALUE OF TAN3(x) is -9.0
                                     PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## HALFANGLE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
                                     PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=4
    A. S.NO=4.1 IS FOR- ALL TRIGNOMTRIC RATIOS
    B. S.NO=4.2 IS FOR- SIN(X+Y), COS(X+Y), TAN(X+Y)
    C. S.NO=4.3 IS FOR- SIN(X-Y), COS(X-Y), TAN(X-Y)
    D. S.NO=4.4 IS FOR- SIN(X)+SIN(Y), COS(X)+COS(Y)
    E. S.NO=4.5 IS FOR- SIN(X)-SIN(Y), COS(X)-COS(Y)
    F. S.NO=4.6 IS FOR- SIN(2X), COS(2X), TAN(2X)
    G. S.NO=4.7 IS FOR- SIN(3X), COS(3X), TAN(3X)
    H. S.NO=4.8 IS FOR- SIN(X/2), COS(X/2), TAN(X/2)
enter your respected serial no. of topic=4.8
enter the value of theta=pi/4
THE VALUE OF SIN(x)/2 is 0.38
THE VALUE OF COS(x)/2 is 0.92
THE VALUE OF TAN(x)/2 is 1.41
                                     PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```



# STATSMATHSRELATEDOPERATIONSIS

## MEAN,MEDIAN,MODE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=5
    A. S.NO=5.1 IS to find MEAN,MEDIAN,MODE
    B. S.NO=5.2 IS to find MEIDAN_HIGH,MEDIAN_LOW
    C. S.NO=5.3 IS to find STANDARD_DEVIATION
    D. S.NO=5.4 IS to find VARIANCE
enter the respective serial no.=5.1
enter the elements seperated by comma =1,2,3,4.4,5,5,
THE MEAN IN [1, 2, 3, 4.4, 5, 5] IS 3.4
THE MEDIAN IN [1, 2, 3, 4.4, 5, 5] IS 3.7
THE Mode IN [1, 2, 3, 4.4, 5, 5] IS 5
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## MEDIANHIGH,MEDIAN LOW

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=5
    A. S.NO=5.1 IS to find MEAN,MEDIAN,MODE
    B. S.NO=5.2 IS to find MEIDAN_HIGH,MEDIAN_LOW
    C. S.NO=5.3 IS to find STANDARD_DEVIATION
    D. S.NO=5.4 IS to find VARIANCE
enter the respective serial no.=5.2
enter the elements seperated by comma =2,3,4,5,6,1.3
THE MEDIAN_high IN [2, 3, 4, 5, 6, 1.3] IS 4
THE MEDIAN_low IN [2, 3, 4, 5, 6, 1.3] IS 3
THE HARMONIC MEAN IN [2, 3, 4, 5, 6, 1.3] IS 2.7036395147313694
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-
A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## STANDARD DEVIATION

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-

A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=5
      A. S.NO=5.1 IS to find MEAN,MEDIAN,MODE
      B. S.NO=5.2 IS to find MEIDAN_HIGH,MEDIAN_LOW
      C. S.NO=5.3 IS to find STANDARD_DEVIATION
      D. S.NO=5.4 IS to find VARIANCE
enter the respective serial no.=5.3
enter the elements seperated by comma =12,1,2,3,3.4
THE STANDARD DEVIATION 4.414974518612763
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-

A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

## VARIANCE

```
*IDLE Shell 3.10.2*
File Edit Shell Debug Options Window Help
Python 3.10.2 (tags/v3.10.2:a58ebcc, Jan 17 2022, 14:12:15) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/amank/Videos/check.py =====
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-

A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=5
      A. S.NO=5.1 IS to find MEAN,MEDIAN,MODE
      B. S.NO=5.2 IS to find MEIDAN_HIGH,MEDIAN_LOW
      C. S.NO=5.3 IS to find STANDARD_DEVIATION
      D. S.NO=5.4 IS to find VARIANCE
enter the respective serial no.=5.4
enter the elements seperated by comma =1,2,3,4.4
THE VARIANVCE IN [1, 2, 3, 4.4] IS 2.1066666666666667
                                PLZ, OBSERVE THE RESPECTIVE S.NO FOR TOPICS-

A. S.NO=1 IS FOR-MENSTURATION
B. S.NO=2 IS FOR-PROFIT AND LOSS
C. S.NO=3 IS FOR COORDINATE GEOMETRY
D. S.NO=4 IS FOR TRIGNOMETRIY
E. S.NO=5 IS FOR STATISTICS
enter your serial no. according to your choice=
```

