

In [2]:

```
#Q No 1 (a)
print("Given data")
r=float(input("enter the radius of circle in meters:"))
w=float(input("enter the angular speed in rad/s:"))

print("To find")
#v=linear velocity
form=v=r*w
print("the liner velocity in m/s is",form)
```

Given data
enter the radius of circle in meters:0.5
enter the angular speed in rad/s:10
To find
the liner velocity in m/s is 5.0

In [3]:

```
#Q No 1 (b)
print("Given data")
r=float(input("enter the radius of circle in meters"))
w=float(input("enter the angles speed in rad/s:"))

print("To find")
#v=liner velocity
form=v=r*w
print("the linear velocity in m/s is:",form)
```

Given data
enter the radius of circle in meters1
enter the angles speed in rad/s:10
To find
the linear velocity in m/s is: 10.0

In [4]:

```
#Q no 1(c)
print("Given data")
r=float(input("enter the radius of circle in meters:"))
w=float(input("enter the angular speed in rad/s:"))

print("To find")
#v=linear velocity
form=v=r*w
print("the linear velocity in m/s is:",form)
```

Given data
enter the radius of circle in meters:2
enter the angular speed in rad/s:10
To find
the linear velocity in m/s is: 20.0

In [5]:

```
#Q no 2 part(a)
print("Given Data")
r=float(input("enter the radius in centimeters"))
w=float(input("enter the angular speed in rad/s"))

print("To find magnitude of linear velocity")
#v=magnitude of linear velocity
form=v=r*w
print("the magnitude of linear velocity in m/s is:",form)
```

Given Data

enter the radius in centimeters5
enter the angular speed in rad/s523.3
To find magnitude of linear velocity
the magnitude of linear velocity in m/s is: 2616.5

In [6]:

```
#Q no 2 part(b)
print("Given Data")
r=float(input("enter the radius in centimeters"))
w=float(input("enter the angular speed in rad/s"))

print("To find magnitude of linear velocity")
#v=magnitude of linear velocity
form=v=r*w
print("the magnitude of linear velocity in m/s is:",form)
```

Given Data

enter the radius in centimeters10
enter the angular speed in rad/s523.3
To find magnitude of linear velocity
the magnitude of linear velocity in m/s is: 5233.0

In [7]:

```
#Q no 3
print("Given Data")
r=float(input("enter the radius in meters"))
v=float(input("enter linear velocity in m/s"))

print("To find:magnitude of angular velocit in rad/s")
#w=magnitude of angular velocity
form=v=r*w
print("the magnitude of angular velocity=w in rad/s is:",form)
```

Given Data

enter the radius in meters0.3
enter linear velocity in m/s10
To find:magnitude of angular velocit in rad/s
the magnitude of angular velocity=w in rad/s is: 156.98999999999998

In [8]:

```
#Q No 4
print("Given Data")
d=float(input("enter diameter in centimeters"))
v=float(input("enter linear velocit in m/s"))
#conversion
r=((d/100)/2)
print("To find angular speed in rad/s")
#angular speed
form=v/r*w
print("the angular speed in rad/s is:",form)
```

Given Data

enter diameter in centimeters50

enter linear velocit in m/s10

To find angular speed in rad/s

the angular speed in rad/s is: 130.825

In [9]:

```
#Q no 5
r=20/100
w=120/60
w=2*6.28

v=r*w
print("The distance that the travels in 10 second is "+str(v)+"meter")
```

The distance that the travels in 10 second is 2.5120000000000005meter

In [10]:

```
#Q no 6
u=50
a=10
t=2
v=u+a*t
print("The cars travel "+str(v)+"miles/hours from intial posion in next 2 hours")
```

The cars travel 70miles/hours from intial posion in next 2 hours

In [1]:

```
#Q no 7
from math import sqrt
u=0
n=100
a=32
v=sqrt(2*a*n-u**2)
print("with the velocity "+str(v)+"it will hit the ground")
```

with the velocity 80.0it will hit the ground

In []:

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