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In [2]: # Program 1

# part a
r=0.5
w=10
print("Linear Velocity is:",r*w ,("m\s") )

# part b
r=1
w=10
print("Linear Velocity is:",r*w ,("m\s"))

# part c
r=2
w=10
print("Linear Velocity is:",r*w ,("m\s"))
```

Linear Velocity is: 5.0 m\s
Linear Velocity is: 10 m\s
Linear Velocity is: 20 m\s

```
In [3]: # Program 2

# Part a
r=5
w=83.3
radian=6.28
print("Magnitude of Linear Velocity:",r*w*radian ,("m\s"))

# part b
r=10
w=83.3
radian=6.28
print("Magnitude of Linear Velocity:",r*w*radian ,("m\s"))
```

Magnitude of Linear Velocity: 2615.62 m\s
Magnitude of Linear Velocity: 5231.24 m\s

```
In [9]: # Program 3

r=0.3
v=10
print("Angular Velocity:",v/r,("m\s"))
```

Angular Velocity: 33.333333333333336 m\s

```
In [8]: # program 4

r=2.5
v=10
print("Angular Velocity:",v/r,("m\s"))
```

Angular Velocity: 4.0 m\s

```
In [4]: # Program 5

t=10
r=0.2
w=2
radian=6.28
v=r*w*radian
print("Distance:",v*t,("m"))
```

Distance: 25.120000000000005 m

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In [5]: # Program 6

t=2
Vi=50
a=10
print("Vf=Vi+at:", Vi+a*t,("miles\hr"))
```

Vf=Vi+at: 70 miles\hr

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In [6]: # Program 7

a=32
s=100
u=0
print("v:",2*s*a-u,("ft\s"))
```

v: 6400 ft\s