

Console

Startup execution:

loading initial environment

--> XB = [80,90,99,10,116,125,133,141,151,160,169,179,180] // coordinates of bomber
XB =

column 1 to 11

80. 90. 99. 10. 116. 125. 133. 141. 151. 160. 169.

column 12 to 13

179. 180.

--> YB = [0,-2,-5,-9,-15,-18,-23,-29,-28,-25,-21,-20,-17] // coordinates of bomber
YB =

0. -2. -5. -9. -15. -18. -23. -29. -28. -25. -21. -20. -17.

--> vel = 20 // velocity

vel =

20.

--> YF = 50 // initial conditions for fighter

YF =

50.

--> XF = 0 // initial conditions for fighter

XF =

0.

--> for i = 1:12

```
> dist = sqrt( (YB(i) - YF)^2 + ( XB(i) - XF )^2 ) // distance between target and persuer
> s = ((YB(i)-YF)/dist)
> c = ((XB(i)-XF)/dist)
> XF = XF + vel*c
> YF = YF + vel*s
> if(dist<=10) then
>     disp("Bomber Engaged")
```

```
> disp(i-1)
> end
> end
dist =
```

```
94.339811
s =
```

```
-0.5299989
c =
```

```
0.8479983
XF =
```

```
16.959966
YF =
```

```
39.400021
dist =
```

```
83.957181
s =
```

```
-0.4931088
c =
```

```
0.8699677
XF =
```

```
34.359320
YF =
```

```
29.537846
dist =
```

```
73.289019
s =
```

```
-0.4712554
c =
```

```
0.8819968
XF =
```

```
51.999256
YF =
```

20.112738
dist =

51.102730
s =

-0.5696905
c =

-0.8218593
XF =

35.562069
YF =

8.7189287
dist =

83.862079
s =

-0.2828326
c =

0.9591693
XF =

54.745455
YF =

3.0622770
dist =

73.343852
s =

-0.2871717
c =

0.9578791
XF =

73.903037
YF =

-2.6811565
dist =

62.492451
s =

-0.3251408
c =

0.9456656
XF =

92.816350
YF =

-9.1839719
dist =

52.099320
s =

-0.3803510
c =

0.9248422
XF =

111.31319
YF =

-16.790992
dist =

41.239355
s =

-0.2718037
c =

0.9623527
XF =

130.56025
YF =

-22.227065

dist =

29.570055

s =

-0.0937751

c =

0.9955934

XF =

150.47212

YF =

-24.102567

dist =

18.785856

s =

0.1651544

c =

0.9862677

XF =

170.19747

YF =

-20.799479

dist =

8.8387602

s =

0.0904515

c =

0.9959009

XF =

190.11549

YF =

-18.990450

"Bomber Engaged"

11.