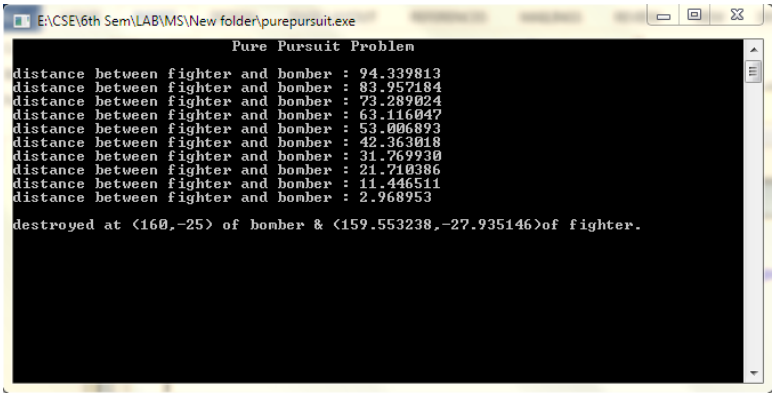
Pure Pursuit Problem

Implementation of Pure Pursuit Problem:

```
#include<stdio>
#include<iostream>
#include<conio>
#include<math.h>

void main(){
        int i,v=20,time=12,xb[15]={80,90,99,108,116,125,133,141,151,160,169,179,180};
  int yb[15]={0,-2,-5,-9,-15,-18,-23,-29,-28,-25,-21,-20,-17};
  float yf[15],xf[15],dist,sqy,sqx,sin,cos;
  xf[0]=0;yf[0]=50;
  printf("\t\t\tPure Pursuit Problem\n");
  for(i=0;i<=time;i++){
        sqy=(yb[i]-yf[i])*(yb[i]-yf[i]);
    sqx=(xb[i]-xf[i])*(xb[i]-xf[i]);
        dist=sqrt(sqx+sqy);
    printf("\ndistance between fighter and bomber : %5f",dist);
    if(dist<=10.0){
        printf("\n\ndestroyed at (%d,%d) of bomber & (%5f,%5f)of fighter.",xb[i],yb[i],xf[i],yf[i]);
            break;
    }
    sin=(yb[i]-yf[i])/dist;
    cos=(xb[i]-xf[i])/dist;
    xf[i+1]=xf[i]+v*cos;
    yf[i+1]=yf[i]+v*sin;
  }
  if(i>time)
          printf("\n\nBomber escaped!! :-(");
  getch();
}
```

OUTPUT



[http://1.bp.blogspot.com/-ZVaoh3jn16o/UzAfNGL1s9I/AAAAAAAAAeg/gDKRfsFmDH8/s1600/purepusuit.PNG]

Posted 24th March 2014 by Muddassir Iqbal

Labels: fighter-bomber problem, pure pursuit problem

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