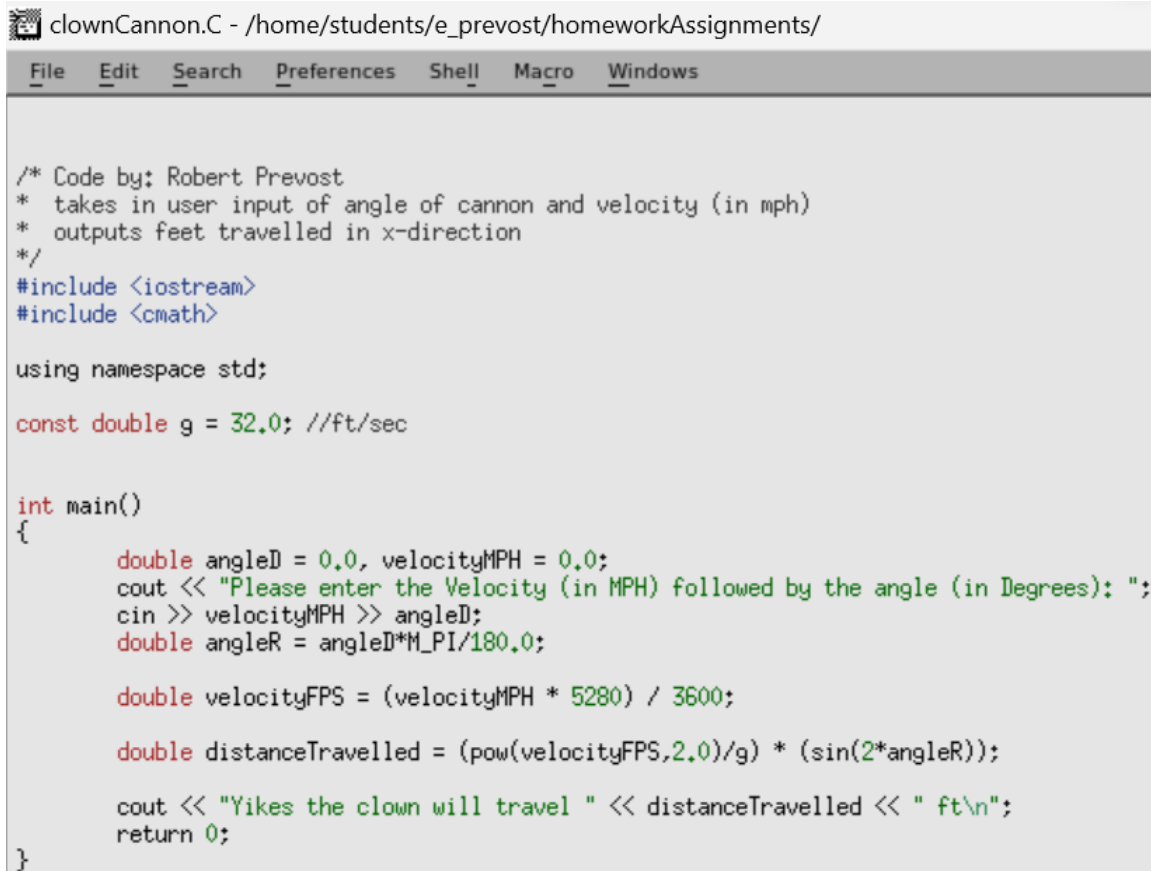


Clown Cannon Assignment - Robert P.

Test Outputs:

```
e_prevost@ares:~/homeworkAssignments$ ./clownCannon
Please enter the Velocity (in MPH) followed by the angle (in Degrees): 100 30
Yikes the clown will travel 582.162 ft
e_prevost@ares:~/homeworkAssignments$ ./clownCannon
Please enter the Velocity (in MPH) followed by the angle (in Degrees): 50 40
Yikes the clown will travel 165.502 ft
e_prevost@ares:~/homeworkAssignments$ ./clownCannon
Please enter the Velocity (in MPH) followed by the angle (in Degrees): 60 60
Yikes the clown will travel 209.578 ft
```

Source Code:



```
clownCannon.C - /home/students/e_prevost/homeworkAssignments/
File Edit Search Preferences Shell Macro Windows

/* Code by: Robert Prevost
 * takes in user input of angle of cannon and velocity (in mph)
 * outputs feet travelled in x-direction
 */
#include <iostream>
#include <cmath>

using namespace std;

const double g = 32.0; //ft/sec

int main()
{
    double angleD = 0.0, velocityMPH = 0.0;
    cout << "Please enter the Velocity (in MPH) followed by the angle (in Degrees): ";
    cin >> velocityMPH >> angleD;
    double angleR = angleD*M_PI/180.0;

    double velocityFPS = (velocityMPH * 5280) / 3600;

    double distanceTravelled = (pow(velocityFPS,2.0)/g) * (sin(2*angleR));

    cout << "Yikes the clown will travel " << distanceTravelled << " ft\n";
    return 0;
}
```

Source Code Text:

```
/* Code by: Robert Prevost
 * takes in user input of angle of cannon and velocity (in mph)
 * outputs feet travelled in x-direction
 */
#include <iostream>
#include <cmath>
```

```
using namespace std;
```

```
const double g = 32.0; //ft/sec
```

```
int main()
```

```
{
```

```
    double angleD = 0.0, velocityMPH = 0.0;
```

```
    cout << "Please enter the Velocity (in MPH) followed by the angle (in Degrees): ";
```

```
    cin >> velocityMPH >> angleD;
```

```
    double angleR = angleD*M_PI/180.0;
```

```
    double velocityFPS = (velocityMPH * 5280) / 3600;
```

```
    double distanceTravelled = (pow(velocityFPS,2.0)/g) * (sin(2*angleR));
```

```
    cout << "Yikes the clown will travel " << distanceTravelled << " ft\n";
```

```
    return 0;
```

```
}
```