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*Problem 2*

#include <iostream>

#include <cmath>

using namespace std;

int main()

{

double gravity = 9.81, xCord = 0.0;

double angle, velocity, startHeight, x, yCord, vcos;

cout << "Enter the angle" << endl;

cin >> angle;

cout << "Enter the velocity" << endl;

cin >> velocity;

cout << "Enter the start height of the projectile" << endl;

cin >> startHeight;

x = pow(xCord,2);

vcos = 2 \* pow(velocity\*cos(angle),2);

//Problem A-2

while(xCord <= 9)

{

yCord = startHeight + xCord\*tan(angle) - ((gravity \* x)/vcos);

cout << "(" << xCord << "," << yCord << ")" << endl;

xCord++;

x = pow(xCord,2);

}

return (0);

}

*Problem 4*

#include <iostream>

#include <cmath>

using namespace std;

int main()

{

double gravity = 9.81, xCord = 0.0;

double angle, velocity, startHeight, x, yCord, vcos;

cout << "Enter the angle" << endl;

cin >> angle;

cout << "Enter the velocity" << endl;

cin >> velocity;

cout << "Enter the start height of the projectile" << endl;

cin >> startHeight;

x = pow(xCord,2);

vcos = 2 \* pow(velocity\*cos(angle),2);

for(; xCord <= 9; xCord++)

{

yCord = startHeight + xCord\*tan(angle) - ((gravity \* x)/vcos);

cout << "(" << xCord << "," << yCord << ")" << endl;

x = pow(xCord,2);

}

return (0);

}

I prefer the code from problem 4 than problem 2.

*Problem 6*

#include <iostream>

#include <cmath>

using namespace std;

int main()

{

double gravity = 9.81, xCord = 0.0;

double angle, velocity, startHeight, x, yCord, vcos;

cout << "Enter the angle" << endl;

cin >> angle;

cout << "Enter the velocity" << endl;

cin >> velocity;

cout << "Enter the start height of the projectile" << endl;

cin >> startHeight;

x = pow(xCord,2);

vcos = 2 \* pow(velocity\*cos(angle),2);

while(yCord >= 0)

{

yCord = startHeight + xCord\*tan(angle) - ((gravity \* x)/vcos);

if(yCord >= 0)

{

cout << "(" << xCord << "," << yCord << ")" << endl;

xCord++;

x = pow(xCord,2);

}

}

return (0);

}

*Problem 8*

#include <iostream>

#include <cmath>

using namespace std;

int main()

{

double gravity = 9.81, xCord = 0.0;

double angle, velocity, startHeight, x, yCord, vcos;

cout << "Enter the angle" << endl;

cin >> angle;

cout << "Enter the velocity" << endl;

cin >> velocity;

cout << "Enter the start height of the projectile" << endl;

cin >> startHeight;

x = pow(xCord,2);

vcos = 2 \* pow(velocity\*cos(angle),2);

for(; yCord >= 0; xCord++)

{

yCord = startHeight + xCord\*tan(angle) - ((gravity \* x)/vcos);

if(yCord >= 0)

{

cout << "(" << xCord << "," << yCord << ")" << endl;

xCord++;

x = pow(xCord,2);

}

}

return (0);

}

I prefer the code from problem 8 than problem 6.