Heuns.c

```c
#include <stdio.h>

// Function to calculate the value of dy/dx
double derivative(double x, double y) {
    return x * x + y;
}

// Function to solve ODE using Heun's method
void heunsMethod(double x0, double y0, double h, double xn) {
    double x = x0;
    double y = y0;
    double y_temp;
    while (x < xn) {
        printf("x = %.2lf, y = %.6lf\n", x, y);
        y_temp = y + h * derivative(x, y);
        y = y + (h/2) * (derivative(x, y) + derivative(x + h, y_temp));
        x = x + h;
    }
}

int main() {
    double x0, y0, h, xn;

    printf("Enter the initial value of x: ");
    scanf("%lf", &x0);

    printf("Enter the initial value of y: ");
    scanf("%lf", &y0);

    printf("Enter the step size (h): ");
    scanf("%lf", &h);

    printf("Enter the final value of x: ");
    scanf("%lf", &xn);

    printf("Solving ODE using Heun's method:\n");
    heunsMethod(x0, y0, h, xn);

    return 0;
}
```