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#include <stdio.h>
#include <math.h>

struct eq
{
    double a, b, c;

    double roots[2];
};

int toSolve (struct eq *);

int
main()
{
        struct eq toSolve;
        scanf ("%lf%lf%lf", &toSolve.a, &toSolve.b, &toSolve.c);
        if (!toSolve.a && !toSolve.b)
                return 0;
        switch (solver(&toSolve))
        {
                case 0:
                        printf ("This equation has no real roots!\n");
                        break;
                case 1:
                        printf ("There is 1 root: %lf\n", toSolve.roots[0]);
                        break;
                case 2:
                        printf ("There are 2 roots: %lf& %lf",
                                toSolve.roots[0], toSolve.roots[1]);
        }
```

```
    return 0;
}

int
solver (struct eq * ptr)
{
    double a = ptr->a, b = ptr->b, c = ptr->c;
    if (!a)
    {
        ptr->roots[0] = -c / b;
        return 1;
    }
    double delta = b*b - 4*a*c;
    if (delta < 0)
        return 0;
    ptr->roots[0] = (-b + sqrt(delta)) / (2*a);
    ptr->roots[1] = (-b - sqrt(delta)) / (2*a);
    if (!delta)
        return 1;
    return 2;
}
```