```
bisection(@(x)(x ^ 2), -1, 1)
newton(@(x)(x ^ 2), @(x)(2 * x), 1)
secant(@(x)(x ^ 2), 1, 2)
function x = bisection(f, x0, x1)
    x = 0.5 * (x0 + x1);
    disp(x);
    if x1 - x0 < 0.0001
        return
    elseif f(x0) * f(x) <= 0
        x = bisection(f, x0, x);
    else
        x = bisection(f, x, x1);
    end
end
function x = newton(f, fp, x0)
    disp(x0);
    if abs(f(x0)) < 0.0001
        x = x0;
    else
        x = newton(f, fp, x0 - f(x0) / fp(x0));
    end
end
function x = secant(f, x1, x0)
    disp(x1);
    if abs(f(x1)) < 0.0001
        x = x1;
    else
        x2 = (x0 * f(x1) - x1 * f(x0)) / (f(x1) - f(x0));
        x = secant(f, x2, x1);
    end
end
```

0

-0.5000

-0.2500

-0.1250

-0.0625

-0.0312

-0.0156

-0.0078

-0.0039

-0.0020

```
   -9.7656e-04

   -4.8828e-04

   -2.4414e-04

   -1.2207e-04

   -6.1035e-05

   -3.0518e-05

ans =

   -3.0518e-05

        1

    0.5000

    0.2500

    0.1250

    0.0625

    0.0312

    0.0156

    0.0078

ans =

    0.0078

        1

    0.6667

    0.4000

    0.2500

    0.1538

    0.0952

    0.0588

    0.0364
```

```
    0.0225

    0.0139

    0.0086


ans =

    0.0086
```

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