

```

void fft(int delta, int step, int size, int flag) {
    if ( size == 1 ) { res[delta] = coef[delta]; return; }
    fft(delta, step * 2, size / 2, flag);
    fft(delta + step, step * 2, size / 2, flag);
    Complex acc(1, 0), pri(cos(flag * 2 * PI / size), sin(flag * 2 *
PI / size));
    for ( int i = 0; i < size / 2; i ++, acc = acc * pri )
        tmp[delta + i * step] = res[delta + i * step * 2] + acc * res[delta
+ step + i * step * 2];
    for ( int i = size / 2; i < size; i ++, acc = acc * pri )
        tmp[delta + i * step] = res[delta + (i - size / 2) * step *
2] + acc * res[delta + step + (i - size / 2) * step * 2];
    for ( int i = 0; i < size; i ++ ) res[delta + i * step] = tmp[delta
+ i * step];
}

```