

5-8em

```

} else {
    swap(p[a], p[b], p[a] - 1, 1);
    swap(p[b], p[a], p[a] - 1, -1);
}
} return

```

```

} swap(p[a], p[b]);

```

```

} int main() {

```

```

    ios::sync_with_stdio(0);

```

```

    cin.tie(0);

```

```

    cin >> n >> q;

```

```

    for (int i = 0; i < n; i++) {

```

```

        cin >> p[i];

```

```

        p[i]--;

```

```

    } build();

```

```

    for (int i = 1; i <= q; i++) {

```

```

        int t;

```

```

        cin >> t;

```

```

        if (t == 1) {

```

```

            int l, r;

```

```

            cin >> l >> r >> x;

```

```

            l--;

```

```

            r--;

```

```

            update(l, r, x);

```

```

        } else if (t == 2) {

```

```

            int l, n;

```

```

            cin >> l >> n;

```

```

            l--;

```

```

            n--;

```

```

            cout << query(l, n) << "\n";

```

```

        } else {

```

```

            int a, b;

```

```

            cin >> a >> b;

```

```

            a--;

```

```

            b--;

```