Shortest Path

```
initialization {
    for each v ∈ V do {
        d[v] = ∞;
        p[v] = nil;
    }
    d[s] = 0
}
```

```
// Key step in shortest path algo
relaxation(u, v, w) {
    if (d[v] < d[u] + w(u, v)) {
        d[v] = d[u] + w(u, v);
        p[v] = u;
    }
}
```

- Initial guess is like a spring stretched fully.
- Spring is relaxed (solution improves) to proper shape.