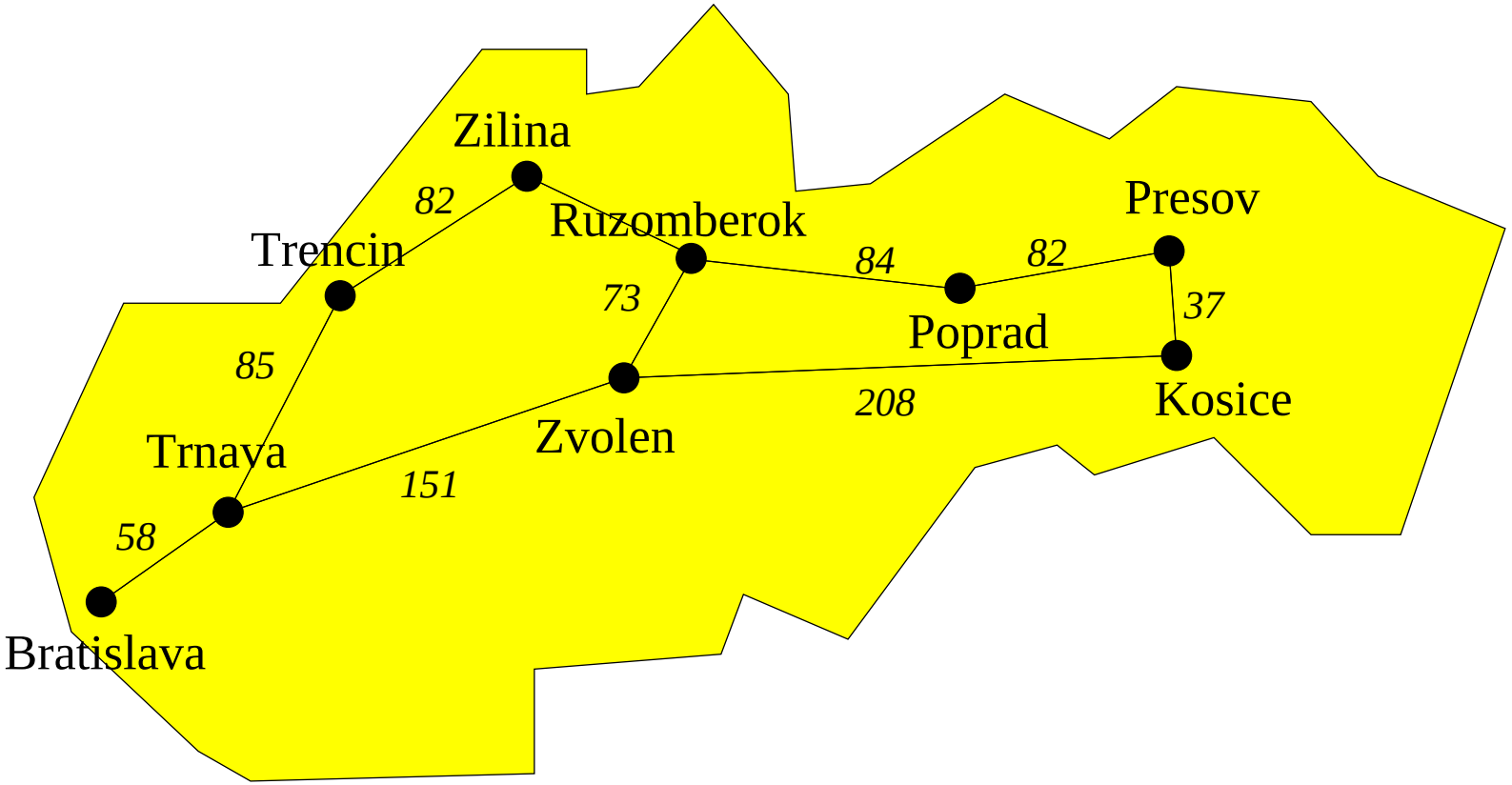
Zilina
82
Ruzomberok
Presov
Trencin
84
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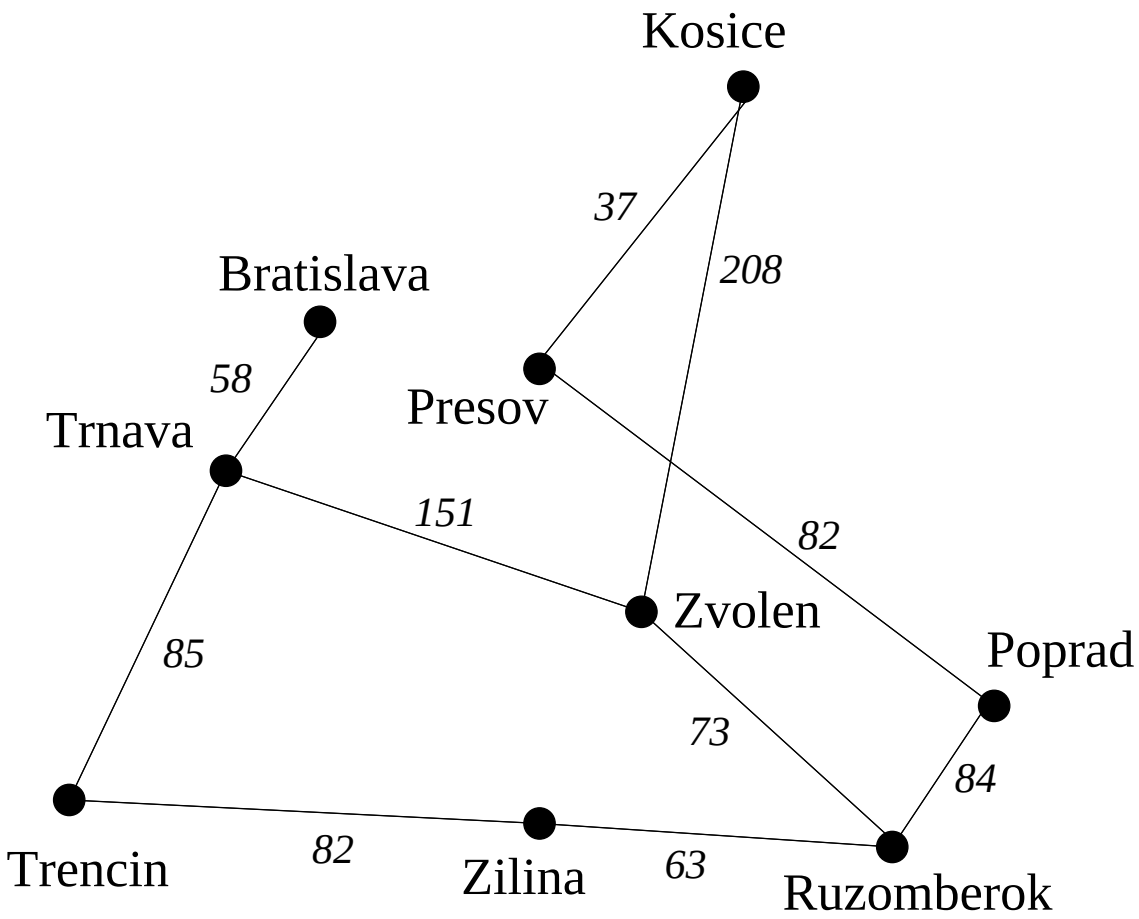
73
37
Poprad
85
208
Kosice
Zvolen
Trnava
151
58
Bratislava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82
Zilina
63
Ruzomberok

Dijkstrov algoritmus

```
// initialize dist, S, T
S:=0; T:=V;
for all w in V do dist[w]:=infinity;
dist[u]:=0;

// add one vertex at a time to T
while T is non-empty do
**s:=vertex for which dist[s] represent the length
**   of the shortest path from u to s;
  add s to S; remove s from T;
  // update dist to account for enlarged set S
  for all t in out(s) do
    // try to shorten current path to t through s
    if (dist[s]+w[s,t]<dist[t]) then
      dist[t]:=dist[s]+w[s,t];
```

Dijkstrov algoritmus

```
// initialize dist, S, T
S:=0; T:=V;
for all w in V do dist[w]:=infinity;
dist[u]:=0;

// add one vertex at a time to T
while T is non-empty do
  s:=vertex with the smallest dist[s];
  add s to S; remove s from T;
  // update dist to account for enlarged set S
  for all t in out(s) do
    // try to shorten current path to t through s
    if (dist[s]+w[s,t]<dist[t]) then
      dist[t]:=dist[s]+w[s,t];
```

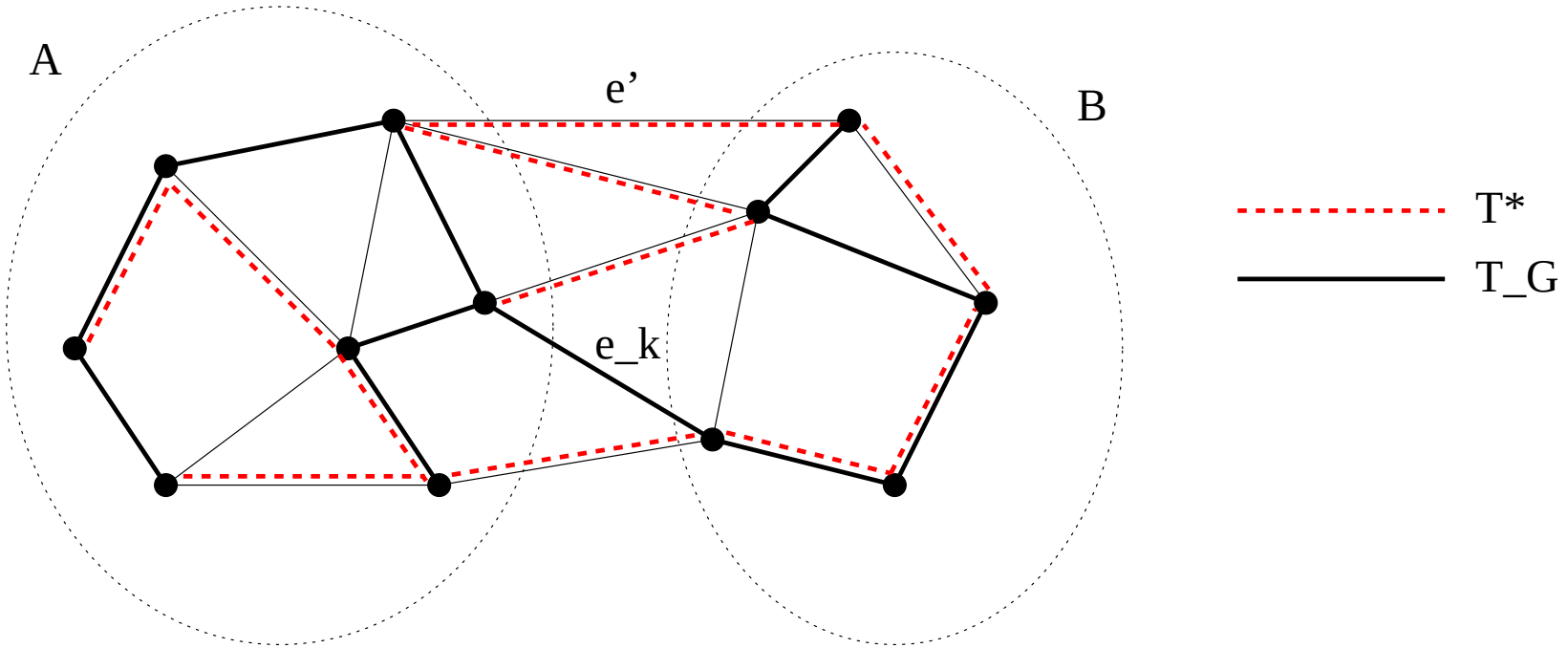
Dijkstrov algoritmus (s rekonštrukciou ciest)

```
// initialize dist, S, T
S:=0; T:=V;
for all w in V do
* dist[w]:=infinity; last[w]:=undefined;
dist[u]:=0;

// add one vertex at a time to T
while T is non-empty do
  s:=vertex with the smallest dist[s];
  add s to S; remove s from T;
  // update dist to account for enlarged set S
  for all t in out(s) do
    // try to shorten current path to t through s
    if (dist[s]+w[s,t]<dist[t]) then
*     dist[t]:=dist[s]+w[s,t]; last[t]:=s;
```

```
// path reconstruction from u to v
w:=v; create an empty path;
while last[w]<>undefined do
  add w to the beginning of the path;
  w:=last[w];
```

Kruskalov algoritmus (minimálna kostra)

```
Sort edges in order of increasing weight
so that w[f[1]] <= w[f[2]] <= ... <=w[f[m]]

T=empty set
for i:=1 to m do
  let u,v be the endpoints of edge f[i]
  if there is no path between u and v in T then (**)
    add f[i] to T
return T
```


A
e’
B
e_k
T*
T_G