

$\text{Invariants}[a, t]$ gives the new values of a and t
after one of each set of equivalent knots in a is moved to t .

```
Invariants[a_List, t_List] := Invariants[a, t] =  
  Block[{l = a, r = t},  
    Do[If[(i = i /@ l) != {},  
      r = Select[{l, i}^T,  
        Count[i, #[[2]]] == 1 &] [[ ;; , 1]] Union r;  
      l = Complement[l, r]],  
    {i, {If[# === Abs /@ #, #, 0] &, JonesPolynomial, Colourings[#, 5] &}}];  
  {l, r}];
```