NAME
cluster – find clusters in a graph and augment the graph with this information.

SYNOPSIS
cluster [-v?] [-C k] [-c k] [-o outfile] [ files ]

DESCRIPTION
cluster takes as input a graph in DOT format, finds node clusters and augments the graph with this information. The clusters are specified by the "cluster" attribute attached to nodes; cluster values are non-negative integers. cluster attempts to maximize the modularity of the clustering. If the edge attribute "weight" is defined, this will be used in computing the clustering.

OPTIONS
The following options are supported:

-Ck specifies a targeted number of clusters that should be generated. The specified number k is only a suggestion and may not be realisable. If k == 0, the default, the number of clusters that approximately optimizes the modularity is returned.

-c k specifies clustering method. If k == 0, the default, modularity clustering will be used. If k == 1 modularity quality will be used.

-o outfile Specifies that output should go into the file outfile. By default, stdout is used.

-v Verbose mode.

EXAMPLES
Applying cluster to the following graph,

graph {
  1--2 [weight=10.]
  2--3 [weight=1]
  3--4 [weight=10.]
  4--5 [weight=10]
  5--6 [weight=10]
  3--6 [weight=0.1]
  4--6 [weight=10.]
}
gives

graph {
  node [cluster=-1];
  1 [cluster=1];
  2 [cluster=1];
  3 [cluster=2];
  4 [cluster=2];
  5 [cluster=2];
  6 [cluster=2];
  1 -- 2 [weight="10."];
  2 -- 3 [weight=1];
  3 -- 4 [weight="10."];
  4 -- 5 [weight=10];
  5 -- 6 [weight=10];
  3 -- 6 [weight="0.1"];
  4 -- 6 [weight="10."];
}

3 March 2011
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gvmap(1)