

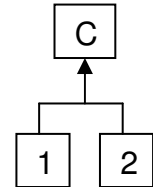
Exercise 6.1 Independent and co-dependent premises

1. Co-dependent premises.

1. If the sample is radioactive, the Geiger counter will register it.
2. The Geiger counter is not registering anything.

Therefore:

C. The sample is not radioactive.

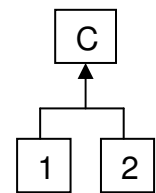


2. Co-dependent premises.

1. The capture of a wild animal is justified only as a last resort to save that animal's life.
2. Many wild animals are captured not because their lives are in any danger but so that they can be bred in captivity.

Therefore:

C. Many animals that have been captured should not have been captured.

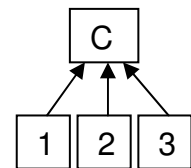


3. Independent premises.

1. The economy is slowing down fast.
2. Many companies are in great difficulties.
3. Consumer demand has fallen off dramatically.

Therefore:

C. Interest rates should be reduced

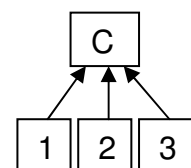


4. Independent premises.

1. Dissecting creatures in the biology classroom teaches students that animal life is expendable and unimportant.
2. A recent study found that companies who supply animals for dissection are careless of the suffering and pain inflicted on them.
3. There are good alternatives available now in computer simulations, which teach the lessons just as well.

Therefore:

C. We should no longer use dissection of animals to teach students in the biology classroom.

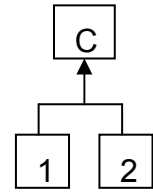


5. Co-dependent premises.

1. Lawn mowers powered by electricity generally require less maintenance than do lawn mowers powered by gasoline.
2. This lawn mower is powered by gasoline.

Therefore

C. This lawn mower will probably require a lot of maintenance.

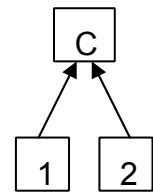


6. Independent premises.

1. Identity cards are of doubtful effectiveness in tackling identity fraud, crime and terrorism.
2. The cost of a national identity card system would be staggering and wasteful.

Therefore:

C. The government's proposal to introduce a national identity card should be rejected.

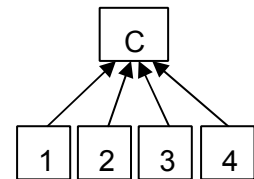


Alternatively (separating out independent claims):

1. Identity cards are of doubtful effectiveness in tackling identity fraud.
2. Identity cards are of doubtful effectiveness in tackling crime.
3. Identity cards are of doubtful effectiveness in tackling terrorism.
4. The cost of a national identity card system would be staggering and wasteful.

Therefore:

C. The government's proposal to introduce a national identity card should be rejected.

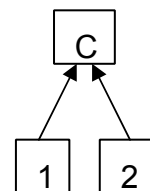


7. Independent premises.

1. Adolescents do better when they aren't distracted by the presence of the opposite sex.
2. The developmental needs of adolescent boys and girls are different.

Therefore:

C. Single-sex high schools work better than coeducational high schools.



Exercise 6.2 Sub-arguments

1. An argument chain.

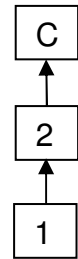
1. Increasing the size of the police force does not get at the root causes of crime.

Therefore:

2. Increasing the size of the police force is only a stopgap method of crime prevention.

Therefore:

C. City officials should not respond to rising crime rates by increasing the size of their city's police force.



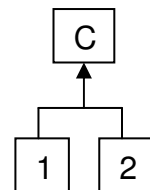
2. No sub-argument, two co-dependent premises.

1. The behaviour of students lacking all interest in the material is unaffected by the incentive of grades.

2. Students with an intense interest in the material would learn it without the incentive of grades.

Therefore:

C. The incentive of grades serves no academic purpose.



3. An argument chain:

1. Professional drivers spend much more of their time driving on average, than other people.

Therefore:

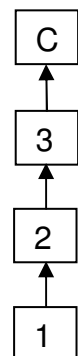
2. Professional drivers are more competent drivers than other less experienced drivers.

Therefore:

3. Reducing the speed limit would have the undesirable effect of forcing some people who are now both law abiding and competent drivers to break the law.

Therefore:

C. The speed limit on major highways should not be reduced.



4. Two independent chains:

1. The zoo's current budget equals less than one percent of the city's deficit.

Therefore:

2. Withdrawing support from the zoo will do little to help the city's financial situation.

3. The zoo adds immeasurably to the city's cultural life.

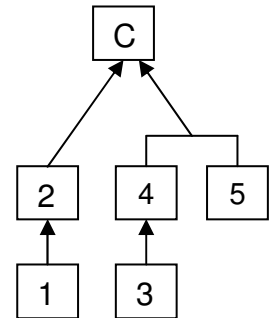
Therefore:

4. The zoo attracts tourists and tax dollars to the city

5. The zoo must close if its budget is cut.

Therefore:

C. It would be false economy for the city to cut the zoo's budget in half.

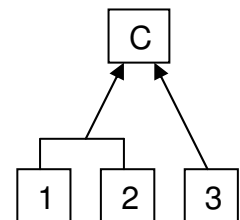


5. No sub-argument, two independent reasons (one consisting of two co-premises):

1. Paper comes from trees, an easily renewable resource.

2. Glass is made from sand which is plentiful and cheap

3. In some Australian cities, recycling schemes have been abandoned because they are too expensive



Therefore (1+2 and 3):

C. We should not recycle paper and glass.

6. An argument with one of the co-dependent premises supported by a further premise:

1. Radioactive elements disintegrate and eventually turn into lead.

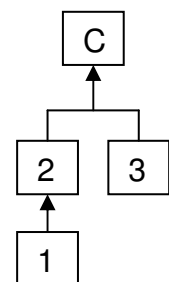
Therefore:

2. If matter had always existed, there should be no radioactive elements left.

3. There is still plenty of uranium and other radioactive elements left.

Therefore (2 and 3):

C. Matter has not always existed.



7. A chain with two co-dependent premises:

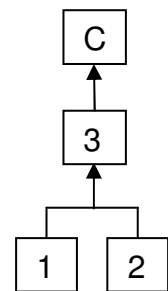
1. Over the past ten years, there has been a four-fold increase in the number of people killed in road accidents who are found to have illegal drugs in their bodies.
2. The rate of increase is much greater than the corresponding figure for those people killed in accidents who were found with alcohol in their blood.

Therefore:

3. The campaign against drink-driving has succeeded.

Therefore:

- C. The Government should now concentrate on targeting those people who drive whilst under the influence of illegal drugs.



7. Alternative answer:

In this alternative answer, premises 1 and 2 in the above have been combined to make a single statement – the rate of increase of drug related accidents has been higher than the rate of increase of alcohol related accidents. From that (as above) it is supposed to follow that the campaign against drink driving has succeeded. From that and the premise that there has been a large increase in the number of drug related accidents, the main conclusion follows.

1. Over the past ten years, the number people killed in road accidents who are found to have illegal drugs in their bodies has increased much more than the number killed who are found to have alcohol in their blood.

Therefore:

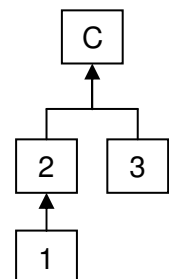
2. The campaign against drink-driving has succeeded.

But:

3. Over the past ten years, there has been a four-fold increase in the number of people killed in road accidents who are found to have illegal drugs in their bodies.

Therefore:

- C. The government should now concentrate on targeting those people who drive whilst under the influence of illegal drugs.



8. A chain with two co-dependent premises at each step:

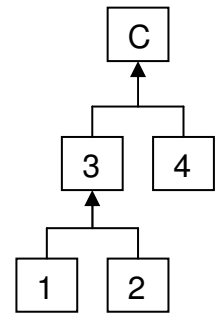
1. New measurements suggest that clouds absorb four times as much energy as previously thought.
2. Existing models of how the climate functions are based on the original measurements.

Therefore:

3. If the new measurements are shown to be accurate, models of how the climate works will have to be completely overhauled.
4. Climate models are used in our attempts to measure global warming.

Therefore:

- C. If the new measurements are accurate, we will have to completely revise our understanding of global warming.



9. An argument with one of the co-dependent premises supported by a further premise:

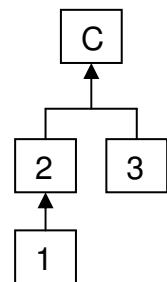
1. When prisoners under sentence of death are given the choice between life in prison and execution, 99 per cent of them choose life imprisonment.

Therefore:

2. Prisoners fear death more than they fear life imprisonment.
3. One is most deterred by what one fears.

Therefore:

- C. The threat of the death penalty is more likely to deter potential murderers than the threat of life imprisonment.



10. A long chain, with three co-premises at one step:

1. The availability and quality of water downstream from the proposed dam would be reduced.

Therefore:

2. The dam would reduce agricultural productivity in the fertile land downstream.
3. The dam would provide irrigation for the dry land in the upstream areas.
4. The productivity loss in the downstream area would be greater than the productivity gain upstream.

Therefore:

5. The dam would yield no overall gain in agricultural productivity in the region as a whole.

Therefore:

- C. The proposed dam on the Merv River should not be built.

