

## Exercise: Bayes Ball

(Source: Jordan.)

Here we compute some global independence statements from some directed graphical models. You can use the “Bayes ball” algorithm, the d-separation criterion, or the method of converting to an undirected graph (all should give the same results).

1. Consider the DAG in Figure 1(a). List all variables that are independent of  $A$  given evidence on  $B$ .
2. Consider the DAG in Figure 1(b). List all variables that are independent of  $A$  given evidence on  $J$ .

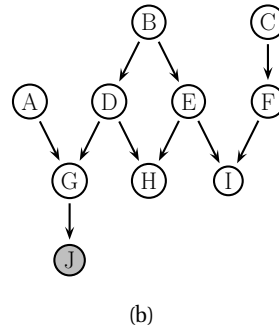
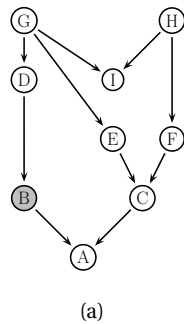


Figure 1: Some DGMs.