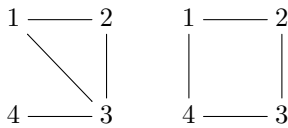


Homework

1. Apply the encoding for a hamiltonian cycle on the following graphs:



2. Test your encoding with a suitable solver, e.g., `yices`.
3. Determine for the SAT/LIA encodings of a hamiltonian cycle the
 - number of variables,
 - (asymptotic) size of the encoding.
4. Use Ferrante and Rackoff's Method on the following problem:

$$4x < 3y \wedge x > y + 1 \wedge 2y < 7 \wedge y > -14 \wedge y > -10$$

5. Apply DPLL(T) to the following problem:

$$(x = t \vee x = b) \wedge p(t) \wedge \neg p(b) \wedge (\neg p(f(0)) \vee \neg(p(f(n)) \rightarrow p(f(s(n)))) \vee \neg p(f(m))) \wedge (f(0) \vee t = f) \wedge \neg p(z) \wedge z = f(m)$$