Pretend Quiz 14

This quiz is not graded. It is for practice purposes only.

1. Find the number of spanning trees of $\mathcal{K}_3$.

2. True & False section. If the statement is true in general (if it has a proof), circle true. If there are examples where the statement is false, circle false.
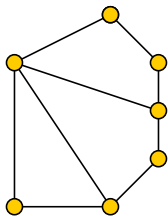
(a) $\mathcal{K}_2$ has a 2-coloring.   TRUE   FALSE

(b) The graph below has a 3-coloring.   TRUE   FALSE

(c) The number of isomorphism classes of   TRUE   FALSE
non-empty subgraphs of $\mathcal{K}_5$ that have
at most one edge is equal to 9.

(d) For every $n > 2$, there exists a tree   TRUE   FALSE
with n edges that has a 2-coloring.

(e) There exists a tree with 3 vertices   TRUE   FALSE
that does not have 3-coloring.

(f) There exists a tree with 4 vertices   TRUE   FALSE
that does not have a 3-coloring.