1) Show that \( \text{EQ}_{\text{CFG}} = \{ <G_1, G_2> \mid G_1 \text{ and } G_2 \text{ are CFGs with } L(G_1) = L(G_2) \} \) is undecidable.

2) Let \( L = \{ <M> \mid M \text{ is a Turing Machine such that } L(M) \text{ only contains even-length strings} \} \). Prove that \( L \) is undecidable.

3) Let \( \text{SS}_{\text{TM}} = \{ <M_1, M_2> \mid M_1 \text{ and } M_2 \text{ are Turing Machines with } L(M_1) \subseteq L(M_2) \} \). Show that \( \text{SS}_{\text{TM}} \) is not decidable by showing that if you had a decider for \( \text{SS}_{\text{TM}} \), you could build a decider for \( A_{\text{TM}} \).