Given a TM p, does it accept any string?

Undecidable.

M_q : TM that solves the problem

M_s : $\langle p, x \rangle$, generates r, accepts iff M_q accepts r.

M_r : y, erase y, do as M_p does on x.

Given TM p, does it accept strings only in 0^*?

Undecidable.

Given a TM p, does it accept 0?

Undecidable.

Given a TM p, and a state q_1 of M_p, is there an input x such that M_p never comes to q_1 on x?

Undecidable.

Given a TM p, a state q_1 of M_p, is there an input x such that M_p comes to state q_1 on x?

Undecidable.

Given a TM p and number n, is there an input x of M_p such that M_p runs on x for more than n steps?

Decidable.

1) Run M_p on all inputs of length $< n$.
   If it takes more than n steps on any, accept.

2) Run M_p on all inputs of length $= n$.
If it takes more than n steps or crosses the rightmost bit of input, accept.

3) Reject otherwise.

Given a TM p and number n, decide if M_p has more than n states.

Decidable.