Hilbert's 10th Problem

\[ z = 503 \]
\[ \Gamma = \{ 0, \#, 1 \} \]

Hw #85
Problem 4

\[ \downarrow \]
\[ \# 0 0 6 0 0 \# \]
\[ \text{Start} \]

\[ \downarrow \]
\[ \# b 0 0 6 0 0 \# \]
\[ \text{Finish} \]

\[ 2x^2 - 7x + 6 = 0 \]

An example input tape representation
3.8(a)

1. If only X's are left on the tape, then accept (or tape is empty).

2. Find a 0 and turn it into an X.

If this is not possible, then reject.

3. Like step 2, but for 1.

4. Go to step 1.